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VIC --- Joe Griffin (see above)

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1520 Plotter --- WGC Austin, School of Geography, Faculty of Humanities,
Newcastle Polytechnic, Lipman Building, Sandyford Rd,
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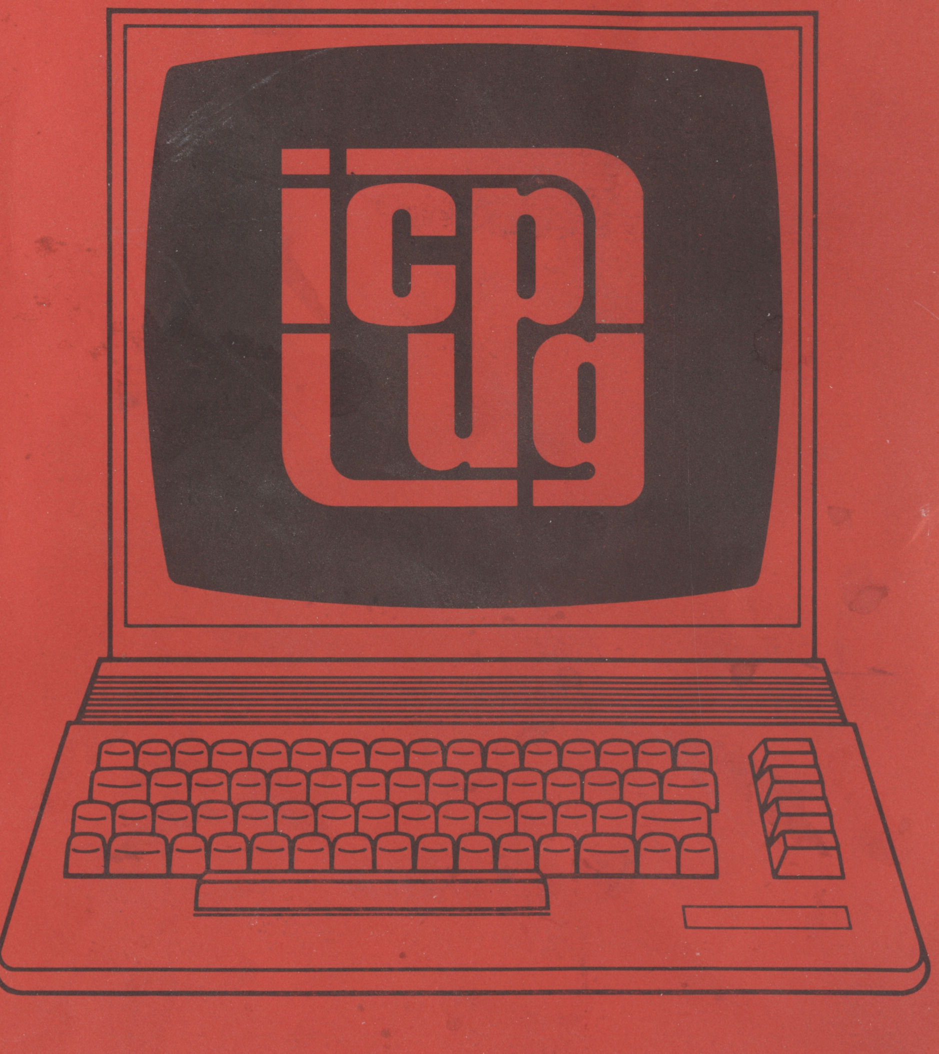

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icpug newsletter
Vol 10 No 3
May/June 1988

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EDITOR'S NOTEBOOK

Every time we produce a Newsletter I say to myself, and a few long-sufferers, "this has definitely been the worst." I refer not to the quality and quantity (on the contary, this issue, as you will see for yourselves, is abundant in both) but the hardships we all suffer in reaching the strict deadline I enthusiastically set weeks in advance. Of course, it probably isn't any worse than the last, it merely seems that way. I am fairly idle (ICPUG-wise) during the month and a half it takes me to recover from the last Newsletter, which lulls me into a false sense of security. Come Committee meeting time (every two months) I am raring to go and full of exciting new ideas. The time I have spent inactive is crammed into ten days (and a few nights) of furious work. When it is finally finished, and all the last minute additions have been found homes, errors (mostly) corrected, Editorial (hastily) scrawled, I roar up to Woking and fling it at the printer. Jonathan, who this time has been very patient, considering I rang him three times to re-arrange our meeting, takes pity on this emaciated zombie with black suitcases under its eyes, and, fortifying it with food and drink a-plenty, puts it back on the train and sends it home, to recover for the next war.

Admittedly, we have had to cope with more than our fair share of disruptions, shortages of hours in the day, and everyday Newsletter problems. To begin with, I was re-locating at the same time the AGM and Commitee Meetings were coming round (please note new address in the inside front cover). All mail had to be re-directed, including letters to "ICPUG Editor, 18 Shelley etc", but considering we had a very early deadline (we have to get this issue to the Commodore show), and an unusual (but much appreciated) amount of submissions, things seemed to tick along (in a chaotic sort of way). Furthermore, one of my stalwart Co-Editors, Iain Graves, was having real problems transferring material from the Amiga (ASCII) to the 128/1541 (PETSCII), the only format I can currently read. As you can see from the membership figures, presented on the opposite page, we have quite a few Amiga users now. Time waits for no man, or Amiga, and the deadline was fast approaching. Iain had to convert, edit, and send over half a disk's worth of text to me in the space of a day. I'm sure he will tell you himself how he solved the transferral problem, some day in the future. I was far-sighted enough, well maybe fortunate enough to nab the ex-Chairman's Compunet modem at the AGM, and again, fortunate enough to have a copy of Y2's User-2-User software. Iain and I linked computers on the Wednesday evening and in half an hour I had the whole lot sitting pretty on my disk. The Modem now has its own place of honour on my computer desk, and will remain there until re-called to active duty.

Speaking of our ex-Chairman, I would like to say a personal thankyou to Jim Kennedy for the help, guidance and sheer enthusiasm he so generously gave when I was wobbling on new-born and very unstable Editorial legs. Jim continued to provide this assistance until he was confident I had settled in, and for a long time after. I'm sure that many of you have experienced Jim's totally unselfish dedication to the ICPUG cause, and so will join with me in thanking him for his exemplary work, and wishing this dynamic character together with his new family all the best in the future. Jim hasn't totally escaped the far-reaching clutches of ICPUG, though. He remains on the ICPUG committee as assistant Exhibitions Organiser. You don't get away that easily, Jim.

He is replaced by John Bickerstaff, ex-Vice-Chairman of ICPUG National, and Chairman of the ICPUG South-East group. John is well-versed in the ways of ICPUG, more than most, and will fill the chair in an extremely competent manner. I'm certain that with JB at the controls, ICPUG will go from strength to strength.

BB

***

STOP PRESS!

We have just had news concerning the ICPUG stand at the forthcoming Commodore Show. Our stand will be no. 89, on the Top Floor, and measures 6x6m.

It has also been confirmed that their will be one ICPUG seminar only, on the Friday, from 2.30-4 pm.

We look forward to seeing you all there.

CURRENT MEMBERSHIP FIGURES

PET/CBM	380	Plus4	309	Cassette	2085
64	1812	C16	74	Disk	3057
VIC	334	700	39	Printer	2685
Amiga	1104	128	1145	Modem	799
PC	94			Monitor	1828

***

PET PRATTLE - 2

by Joe Griffin

Printers

A printer is arguably the most important peripheral you can attach to your PET. Until you have a means of obtaining hard copy, the uses to which the machine can be put are severely limited.

In my previous article, I mentioned that the peripherals for the PET were quite a long time coming. As a result of this a number of firms offered their own printers for use with Commodore machines. This trend has continued throughout the industry, with a large number of alternatives being offered for all makes. In this article, I shall concentrate mainly on dot-matrix printers, though much will also be relevant to daisywheel units.

Addressing the printer

In Commodore BASIC, there are commands to address any IEEE bus device (disks, printers, etc.) whereas with various other BASICs, there is are means to directly address the printer. For example in IBM BASIC, to list a program to the screen, one types 'LIST'; to list to the printer the command is 'LLIST'. Similarly for printing, 'PRINT' goes to the screen and 'LPRINT' to the printer. With Commodore machines, the system is more complicated but does allow (in my opinion) greater versatility in programs. The procedure is as follows:

1) Open a communications channel to the printer. This statement needs to know two main pieces of information: a channel number, and the device number (printers are usually device 4 on the IEEE bus). A simple analogy is with telephones: to install a telephone line requires a knowledge of the line number and where it actually goes.

The command is (for example):

```
OPEN 2,4 (channel 2 opened to device number 4)
```

With some printers, there is a need to open what is known as a 'secondary address' to the printer (as will be explained later). In this case the command syntax is:

```
OPEN 2,4,7 (channel 4 to device 2 with sa=7)
```

2) Send information down the line to the printer. The telephone analogy still holds: to ring our Editor, I simply use his number, I don't need to know where his house is.

Here, two options are available:

By redirection:

```
CMD 2   (tells PET to use channel 2 for all output)
PRINT "something or other"    (will go to printer)
PRINT#2   (used to "unlisten" printer, ie cancel redirection)
```

or directly

```
PRINT#2,"summat else or other"
```

3) Drop the line to the printer:

```
CLOSE 2
```

The PET can effectively be told to redirect all output to the required channel until instructed otherwise. This is of particular value when a block of printing is being done all at one time and the option is required to print it to the screen or the printer. If the printing is contained in a subroutine, repeated calls can be made with various redirection as required.

```
10 rem redirect output to printer
20 open 2,4:rem open printer
30 input "output to screen, printer or exit (s/p/x) ";dv$
40 if dv$="x" then 80
50 if dv$="s" then gosub 100:goto 30:rem print and return
60 if dv$="p" then cmd 2:gosub 100:print#2:goto 30:rem redirect
61 rem note 'print#2' command to cancel redirection
70 goto 30:rem catch errors
80 close 2:rem shutdown printer
90 end
100 print "Hello there everyone!"
110 print "more stuff"
    etc.
199 print "last line of this lot"
200 return
```

Alternatively, output can be directed specifically to the appropriate channel. This is of most use when the program is required to output to both screen and printer at the same time.

```
10 rem output to printer and screen
20 open 2,4:rem open printer
30 print "This line goes to the Screen"
40 print#2,"But THIS one goes to the Printer"
50 print#2,"This line also goes to the Printer"
60 print "and this goes to the screen"
70 close 2:rem drop line to printer
80 end
```

CBM printers

Over the years Commodore have produced (or had produced for them) a number of alternative printers. The original 2022 and 2023 printers were slow and noisy (just like modern daisywheels!). They were superseded by the 4022 (an Epson-based unit of few features but good reliability). The 8000 series were accompanied by the 8024 (fortunately a short-lived unit - built like a tank) and the 8026 & 8027 Olympia daisywheels (slow - 16 chars/sec). Later came the superb 8023 (later still it became the 1361) and the 6400 and 8300 daisywheels. These latter two were lovely machines - we had a 6400 going spare at work and I managed to persuade the powers-that-be that it's best home was my office. On the night before I acquired it, it (and the entire floor where it was stored) was destroyed in a fire - a sad loss!

The various daisywheel units were capable (as is my DPS 1101) of very high quality work and had the standard full range of features. The 8024 dot-matrix was a very heavy-duty machine, not altogether suited to the PET range as it lacked one of the main features of the other CBM dot-matrix machines without having the variety of features found on third-party printers. Unlike all the other CBM matrix units it was unable to print the entire PET character set, including graphics symbols.

In general the CBM dot-matrix units have few features, they can print reversed and double (or treble, quadruple etc) width characters. A 'user defined character' can be defined and printed (only one at a time though) and the number of lines/page and lines/inch can be adjusted, all through the use of secondary addresses. It is also possible to define and use a format for printing (rather like the 'print using' command on other machines, but not so versatile). On the 8023, secondary addresses can also be used to set the printer into a condensed pitch (17 cpi) or 'pseudo letter quality' mode (more 'pseudo' than 'letter quality'!). There are at least two variants of 8023 ROM (I have two different versions in my office). These differ in the secondary address used to reset the printer. The early 8023 uses sa 10, the later one 16.

The single biggest virtue of the CBM printers is that they are compatible - you just plug them in and go. There is no need for a special interface and apart from learning how to obtain the correct variant of upper-case /graphics (graphics mode) or lower-case/upper-case (text mode) the printers are quite simple to operate.

As with the 40 column PETs, the CBM printers default to graphics mode. Just as any PET can switch between the two (POKE 59468,12 for graphics and POKE 59468,14 for text) so it is possible to switch the printer. However, here there is a difference: the printer can output lower case, upper case and graphics at the same time utilising a sort of 'shift function', using the cursor up/down keys.

To print a line of text containing both upper and lower case letters, the line should be prefixed with a cursor down character (CHR$(17)). The printer will return to normal graphics mode when it performs a carriage return or encounters a cursor up character (CHR$(145)). In practice I never use the 8023 in this way. I prefer to initially set the printer into text mode, then use the cursor keys to obtain graphics symbols when needed. Try the following:

First, in direct mode, POKE 59468,14, to set the PET into text mode.

```
10 open 2,4:rem open printer
20 print#2,"This is Mixed UPPER and lower case text"
30 rem this should come out as upper case and graphics
40 rem the first character in the next set of quotes
50 rem   should be a cursor down character
60 print#2,"[down]This is Mixed UPPER and lower case text"
70 close 2:rem this should come out as upper and lower case
80 open 3,4,7:rem sa = 7 sets text mode
90 print#3:rem action the sa
100 close 3
110 open 2,4:rem open printer
120 print#2,"This is Mixed UPPER and lower case text"
130 close 2:rem this should come out as upper and lower case
140 end
```

'Plug Compatible' printers

In addition to the CBM printers, there are a number of manufacturers who produce printers with a built-in 'PET Interface'. To a greater or lesser extent these provide some of the features of the Commodore printers. Commonly, the graphics characters and reverse field printing are available but many other features, obtained by secondary addresses, are not. Some of these printers may offer the worst of both worlds: being neither fully CBM compatible, nor allowing access to the full range of facilities found on the basic printer.

Non-CBM printers

Most third-party printers come with a 'Centronics' input. For use with the PET, an interface is required. At the start, a number of Centronics interfaces were available via the User Port but these were not supported by software authors, who tended to stick with the standard IEEE bus for output. My knowledge of these user port interfaces is non-existent, so I will comment no further on them in this article.

Some manufacturers, such as Epson, provide a range of plug-in interface cards, both machine-specific and general. When I bought my Epson FX-80, I was advised to take the IEEE interface, rather than the so-called PET interface. The IEEE interface provides the appropriate connector on the printer but does not carry out any character conversion. There have been a number of interface leads available, which plug into the standard Centronics port on the printer and allow switching for ASCII or PETSCII code. These only convert codes, they do not provide the graphics characters of the CBM printers.

So why use a non-CBM printer? The reason I chose an Epson was the range of features available. On the CBM 4022, the choice is limited to 10 cpi, normal or reversed characters, expanded characters and variable line pitch. On the 8023, there is additionally the choice of 17 cpi or 10 cpi 'pseudo letter quality'. On the Epson FX-80, reverse is not available. However some of the type styles which can be selected include: 10, 12 or 17 cpi, underlining, italics, bold, double strike, superscripts, subscripts and proportional spacing. All these are selected by sending a series of characters to the printer and in general changes can be made in mid-line if required.

The single biggest drawback of these printers is the need to use some form of conversion routine to get from PETSCII (on the PET) to true ASCII (for the printer). Many methods can be used.

ROM modification

Some (long) time ago Lee Allen published a routine in the ICPUG-SE Newsletter (Issue 15, Page 29) detailing a modification to the 'F' ROM which allowed true ASCII output to channel 5 of an IEEE device (unit 4 or greater). Whenever I am running BASIC on my 8096, I use a soft-loaded system which includes this modification. To obtain correct printing from the Epson, I 'OPEN 5,4' and the modified code handles the conversion. It would be possible to blow an EPROM with the new code but being a late machine mine has soldered-in ROMs, not socketted ones.

BASIC translation

A long time ago I was given a text file stored as true ASCII, from somewhere I obtained the following method of conversion (I believe the idea came from "Compute!" or "Compute!'s First Book of PET/CBM").

Set up a string array 255 characters long. Each element stores the ASCII code of the character whose PETSCII code has the value of that element's index. Eg PETSCII 'a' is CHR$(65); the ASCII value of 'a' is 97. Thus if the translation array is CR$, CR$(65)=CHR$(97).

When printing, for each character in turn obtain the PETSCII value N=ASC(...) then print CR$(N).

The full translation array is defined by:

```
100 dim cr$(255):' translation array
110 :
120 ' pet ascii to standard ascii
130 :
140 for i=0to64:cr$(i)=chr$(i):next
150 for i=65to90:cr$(i)=chr$(i+32):next:rem lower case letters
160 for i=91to95:cr$(i)=chr$(i):next
170 for i=96to127:cr$(i)=cr$(i-64):next
180 for i=128to192:cr$(i)=cr$(i-128):next
190 for i=193to223:cr$(i)=chr$(i-128):next:rem upper case
200 for i=224to255:cr$(i)=cr$(i-64):next
 ...
230 open 2,4
240 op$="Test String!"
250 for j=1 to len(op$)
260 :print#2,ch$(asc(mid$(op$,j,1)));
270 next j:print#2
```

This method works for all BASICs, but is tediously slow. If the program is compiled then speed is reasonable but not brilliant.

Machine-code conversion

Early in 1986 I was contacted by a member who had an 8032 and MX-80 printer. He wanted normal text output - a reasonable request. I wrote and supplied him with a short machine code routine for the job. The code lives in the first cassette buffer and when called (by SYS 634) it converts each byte in the named string into ASCII. To use it in a program only three things are needed.

1) Poke the code into the cassette buffer at the start of the program.

2) Place the text to be printed in a string, adding a null character

```
    OP$="This is a Mixed STRING"+""
```

The null at the end ensures that the string is placed in high memory. Without it, the actual line of code would be altered.

3) Call the routine and print the string.

```
    SYS 634,OP$:PRINT#2,OP$
```

The code for BASIC 4 is as given here.

```
100 rem dsave "@asc-buffer/n",dl:? ds$
110 rem
120 rem routine to convert a string to true ascii
130 rem joe griffin (icpug) 20/mar/88
140 rem this routine resides in the first cassette buffer
150 rem
160 rem it is safest to add a null to the string, to avoid corruptions
170 rem
180 rem sys 634,xx$ will locate the string and convert it to true ascii
190 rem you may then output this string to your ascii printer and
200 rem the string will be printed with the correct case used.
201 rem
202 rem for basic 2 replace values as follow:
203 rem 270 data  ..., 248, 205, ..., ..., ..., ..., ..., ..
204 rem 350 data  ..., ..., ...,   3, 206, ..., ..., ..., ..
205 rem 390 data  ..., ..., ...,  32, 247, ..., ..., ..., ...
210 rem
210 rem to change to the second cassette buffer
211 rem 240 for i= 826 to 978:read da:cs=cs+da:  poke i,da:next
```

```
212 rem 510 sys 826,b$:' converts string of petscii to true ascii
213 rem 560 sys 826,tt$
220 rem
221 rem and replace values as follow:
222 rem 270 data  ..., ..., ..., ..., ..., ..., ..., 114,  3
223 rem 300 data  ..., ..., ..., ..., ..., 147,   3, ..., ..,..
224 rem 380 data  ..., ..., ..., 181,   3, ..., ..., ..., ..., ...
225 rem
226 rem checksum in line 250 will need changing as well
227 rem
230 cs=0
240 for i= 634 to 786:read da:cs=cs+da:  poke i,da:next
250 if cs<>18351 then print "checksum error":stop
260 rem
270 data  32, 245, 190, 160,   0, 177, 119, 141, 178,  2
280 data 230, 119, 208,   2, 230, 120, 177, 119, 201,  36
290 data 208,   4, 169,   0, 240,   6, 230, 119, 208,  2
300 data 230, 120,   9, 128, 141, 211,   2, 230, 119, 208
310 data   2, 230, 120, 165,  42, 133,   1, 165,  43, 133
320 data   2, 160,   0, 177,   1, 201,   0, 240,  26, 165
330 data   1,  24, 105,   7, 133,   1, 144,   2, 230,  2
340 data 165,   2, 197,  45, 144, 231, 165,   1, 197,  44
350 data 144, 225,  76,   0, 191, 200, 177,   1, 201,  0
360 data 208, 223, 160,   2, 177,   1, 153, 134,   0, 200
370 data 192,   6, 208, 246, 165, 136, 240,  14, 160,  0
380 data 177, 137,  32, 245,   2, 145, 137, 200, 196, 136
390 data 208, 244,  96,  32, 182, 193, 176,  16, 201, 161
400 data 144,  18, 201, 193, 144,  12, 201, 219, 144,  10
410 data 201, 223, 176,   6,   9,  32, 208,   2,  41,  31
420 data  41, 127, 96
430 rem
440 b$="aAbBcCdDeE123456!'#$%& String of UPPER and lower Case !!!"
450 :
460 b$=b$+"":a$=b$+"":rem add nulls to prevent changing program bytes
470 print "Original":print a$:printb$ :print:rem show original strings
480 :
490 open 4,4:print#4,"Original":print#4,a$:print#4,b$
500 :
510 sys 634,b$:rem converts string of petscii to true ascii
520 :
```

```
530 print"Converted":printa$:printb$:print:rem show converted strings
540 print#4,"Converted":print#4,a$:print#4,b$
550 tt$="NOTE This Line will be CORRUPTED as NO Null Added"
560 sys 634,tt$
570 print#4,tt$:print#4,a$:print#4,b$
580 close 4
590 end
```

After running the program once, line 550 will be corrupted, by being converted to ASCII, within the program code. If a null is added to the end of the line, this will not occur.

The same technique can be used with a Petspeed compiled program, though here the string does not need to be declared initially, as Petspeed has fixed variable addresses.

I can supply a copy of the source code and the Petspeed version to anyone who is interested.

***

SPECIAL OFFERS ON
COMMODORE EQUIPMENT

To celebrate CONSUP being appointed a Commodore Business Centre we are offering special prices to ICPUG members.

AMIGA A2000 Complete system including internal hard disk, internal 3½ floppy, keyboard and hi-res colour monitor: £1399

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AMIGA WATCH

by Mike Todd

The perfect vaccine

We've heard a lot about the Amiga Virus recently - the last Newsletter was full of comments about it!

In Amiga terms, a Virus is software which resides in the boot blocks of your disks. These boot blocks are present on any disk that can be inserted at the Workbench Disk prompt (the hand and disk picture) to start up the Amiga.

Virus code is loaded automatically from these blocks on an infected disk, and thereafter weird and wonderful things can happen.

There are currently several virus detectors about - there is one on FISH disk 126 called VCheck, and there is a program from SCA (the Swedish Crackers Association - who started the whole thing!). There are others, but they all rely on the same general principle. Run the program, put the suspect disk in a drive and the program will look for specific features of the Virus and tell you if it's infected - but it does rely on recognising the Virus.

FISH 137 also has a Virus checker called VirusX. Designed for WorkBench users, it will automatically check any disk as soon as it is put into any drive. It recognises some specific virus types, and also warns if the boot block looks odd though it doesn't recognise the virus.

These virus detectors are fine until they either come across an unknown virus type, or a legitimately altered boot-block. In these cases, it would be better if non-standard boot-blocks were displayed in readable form, allowing the user to make a judgement (perhaps looking for the tell-tale messages).

Well, there is such a program which does this. It's written by Leonardo Fei and is called GUARDIAN. Currently available in two versions: one for the A500 and A2000; executed at the start of a session, it resets the Amiga and thereafter any disk inserted and booted wll be checked.

A1000 owners are even luckier since Leonardo has provided a special installation routine which actually puts GUARDIAN onto your KICKSTART disk. It writes its routines in a spare area of the KICKSTART code (or rather, spare-ish area since it contained code used for debugging programs), and therefore it is always installed when you reset.

GUARDIAN provides the option of handing control to a suspect boot-block;

but even when it does this, it holds a copy of some system pointers and checks to see if they are altered by the boot-block - although some Viruses (like the Byte Bandit Virus) don't touch these pointers, instead installing themselves in hidden interrupt routines, most do, and it is a useful double check for the presence of something none too pleasant.

Version 1.1 has been around for a short while, and 1.2 is now available. This is designed to work all currently available versions of the operating system (including 1.3)

This latest version is only available through TRANSACTOR (UK) whose address, in case you missed it in January, is Unit 2, Langdale Grove, Bingham, Nottingham, NG13 8SR. The cost is £3.00.

Superbase

If you read my previous Amiga-Watch you will have seen my comments on Superbase Professional. I wrote these after considerable use of the entire product and after I had hit some very real problems. The vast majority of users (and I include most reviewers in this) will be using the package at a fairly superficial level, and probably very carefully.

I was creating a complex database with six linked files, several applications programs written in the Database Management Language and using three-page forms with complex cross-file linking and updating, and with nearly two hundred fields... and I was trying to make the whole package very user-friendly.

From the problems that I had encountered, and the difficulty in getting solutions from the manuals, I was not impressed with the overall product. I still feel that, as a total package, it lacks professionalism; although the database program itself is of a high standard and stands as a good example of what a good Amiga program should be like.

To date, all my comments relate to version 2.01, released in February. Since then two new versions have appeared - 2.02 in March and 2.03 in April.

I have been using 2.03 since April and I'm pleased to see that the flakey performance of the forms editor has been very much improved. Whereas with 2.01 I encountered several crashes per session, I don't encounter any now! It also works more efficiently, without the seemingly unnecessary screen updates that it used to do.

In addition, some bugs in the main database program itself have been fixed. Sadly, the advertised features that did not exist still haven't been provided, although they are said to be on their way.

I still believe Superbase Professional to be an amazing program and I now use it extensively. It still lacks features which I need for some applications (notably the transactional ability, which will allow several records from a file to appear on screen at the same time, thereby giving a decent invoice forms capability), and the manuals are still very poor but there is little doubt that it is getting there.

Superbase keyboard shortcuts

One of my criticisms of Superbase Personal and Professional is the lack of a keyboard method of accessing the DUPLICATE menu option. It can't even be implemented using the programmed function keys and this makes hands-off-mouse operation very difficult in some cases.

Well, I've found a way - and suddenly Superbase has taken on a new dimension. In fact, any of the menu options that don't include key shortcuts can be made to have them; those that do can have them changed or removed.

This magical feature comes courtesy of John Russell and takes the form of a program called ADD2 on FISH 73.

To provide a keyboard DUPLICATE command, first of all you need a CLI while Superbase has its the main window and the control panel present. If you haven't already got a CLI lurking somewhere, the easiest way to do this is to call up the command requester (use Amiga-A) and type:

```
CALL NewCLI
```

The CLI (which may be on another screen if SBpro came up in its own custom screen) then allows access to the program ADD2 on FISH 73.

To invoke it, put FISH 73 into any drive (here I'm assuming df1:) and enter the command:

```
df1:add/add2 Superbase: 2 4 G
```

The result will be that, on the RECORD menu, you will find that DUPLICATE has acquired an Amiga-G key option.

Almost any key can be used instead of G - even numeric keys - so the option can be customised. In fact, the facility is even more powerful than this since, by replacing G with -kill you can remove any key shortcuts that are already present. I find it useful to remove the Amiga-A option since I often hit it by mistake instead of Amiga-S.

Any menu (or sub-menu) option can be replaced - the 2 and 4 figures represent the 2nd menu strip, 4th item. If 5 parameters are given, it is assumed that the fourth is the sub-item number.

There is no point in executing the command until the named window & menu strip has been created which means that, using the command in a startup-sequence may not work.

To overcome this, an additional program (UNTIL) is included on FISH 73 which will wait until the specified window/menu has been created.

Word Perfect

As well as Superbase Professional, I've recently been trying out Word Perfect, an amazingly versatile word processor recently brought to the Amiga.

It's features are far too numerous to even consider mentioning, but I find its user environment rather intimidating and the program itself unreliable, crashing about my ears too often for comfort. A newer version has been produced and this seems rather more robust, but as I don't have my own copy (it isn't cheap!) I can't really comment in any depth.

With a little bit of extra thought, WordPerfect could very nearly be my ideal Amiga word processor - but it needs to be even more Amiga-ised to achieve this status.

Version 1.3

It wasn't long after version 1.2 was released that rumours abounded: version 1.3 was on its way. With talk of the Amiga 3000, many wondered if 1.3 was to be its operating system and that 1.3 may not be available for other machines.

Well, 1.3 looks as though it WILL be available. For A1000 owners, changing the operating system is simply a matter of using a different KICKSTART disk. A500 and A2000 owners will not be quite so lucky since their operating system is in ROM, and they will use up RAM to hold 1.3 - assuming it's made available in a suitable load form.

I've been lucky enough to play with a pre-release version of 1.3 since early this year and, on the the surface at least, there are few differences. The KICKSTART version number is 34.5, dated December 1987. Several newer versions have been produced since then and the release version can't be far away.

Betty Clay mentioned some of the differences in the previous Newsletter - the main one being the enhanced printer driver environment. You will see the first clue of something different when you take a look at the new Preferences which has a second printer graphic screen. Here you can select all sorts of features. These include the ability to change the printer density, positioning and scaling of the printed image, types of dithering used to produce the grey-scale & colours, and anti-aliasing techniques to smooth diagonal lines. The result is a significant increase in quality of screen-dumped images.

In addition, several bugs in the original driver have been removed and the new one is much faster (up to 20 times!).

Preferences itself has undergone several changes. Selecting SAVE or USE will update the Commodore battery-backed clock if one is present, the CLI on/off option is no longer present (there wasn't really much point in it, was there?), a change has been made to the original printer graphic screen to allow for a different grey scale (which may be needed when using a specialised monochrome monitor) and there is the new graphic screen as mentioned above.

Another major feature of 1.3 (but one which I have not been able to check out) is a Fast Filing System (FFS). This is designed to improve hard disk access, which has always been rather slow as a result of the long winded disk structure used by the Amiga. The main improvements appear to result from rewriting the DOS in assembler, revising many of the algorithms to provide a much faster response for internal processing, and some minor changes to the hard-disk format (for instance, not including unnecessary data block headers).

Disk performance has been quantified as being between 5 and 20 times faster, although a great deal depends on the drive being used and the precise nature of the read/write operations being performed.

To take advantage of the new FFS, you will need to copy all your hard disk files to floppies (or another hard disk!), install the new system, reformat your hard drive and copy the files back again. If everything Commodore say is true, the time spent should be well worth the effort.

With 1.3, those who need to auto-boot from a device other than df0: now have this option available. When an expansion board is "discovered" by the system, a check is made for a valid ROM area associated with it and the code contained in it will be executed appropriately. Exactly how this is done is a long story, and outside the scope of this article! Suffice it to say that, if a disk is found in df0: with a valid boot block, then this will be called, overriding any auto-boot features. If not, then the system will attempt to bring itself up using the boot code associated with the expansion device.

Sadly, the new system still doesn't appear to allow a boot from df1: (something that A1000 users have wanted for a long time so that they can load KICKSTART from one drive, and boot from another).

1.3 also has several new commands provided. For instance, Charlie Heath's FastFont has been included (which improves the speed at which text is written to the screen) and there are other commands (such as SetEnv, SetAlert & GetEnv) which are not yet properly documented so I can't tell you what they do!

Several other commands have been changed. For instance, LIST now shows all the file protection/status bits since there are 4 new bits in use. The full list is HSPARWED (it used to be just ----RWED). H means that the file has been HIDDEN, although clearly intended to stop files appearing in a DIR or LIST, this doesn't seem to work as yet; S indicates a SCRIPT file (that can be EXECUTEd from the new SHELL, without using the EXECUTE command); P means that the file is PURE (and can therefore be made RESIDENT); A is an ARCHIVE bit which would normally be set as an indication that a file has been backed-up, any write operation will clear the A flag to indicate that the file needs to be backed-up. The RWED flags appear to have the same status as in earlier versions.

A new SHELL environment has been provided, and can be used in lieu of the normal CLI. This has command history (where previously typed lines can be recalled using the crsr up key) and command line editing. It also allows SCRIPT files (with the S bit set) to be executed directly simply by typing their name.

The SHELL is invokable through the SHELL icon, which uses the SYSTEM/CLI command (tool) and sets the window as NEWCON: (which is a new console handler, mounted as part of the normal startup-sequence).

For more serious users, a PIPE device has been implemented allowing the output of one program to be PIPEd to another as its input.

There is also a new RAM: disk (called RAMB0:) which is driven by the RAMDRIVE.DEVICE driver. This is a recoverable RAM-disk whose contents will survive a soft reset and which always appears with an icon on the WorkBench.

All things considered, 1.3 is a significant improvement on 1.2 and I am looking forward to seeing the final release - which cannot be too long now. Mind you, I am disappointed to find that the hidden messages (as mentioned in the November 1987 newsletter) don't seem to be accessible.

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CHAIRMAN'S CHATTER

by John Bickerstaff

Annual General Meeting

As with all good AGMs, this year's brought some changes. The retiring - who could ever call Jim retiring? - Chairman opened the meeting by outlining ICPUG events during 1987. An eventful year, (as it has been for himself) with record membership and attendance at shows, new Editors and a new-look Newsletter produced with the aid of a laser printer, and even a record number of machines launched by Commodore. Also new was the AGM venue. This year it was held at the Charing Cross Hotel, due to the cost of the previous venue more than doubling since last year. At the close of his report, Jim Kennedy thanked all Committee officials, copiers and other helpers for their efforts during 1987. This was followed by a special vote of thanks to Jim from the floor for the considerable work expended on ICPUG's behalf during his 2 years as Chairman.

The 2nd Report and Accounts (sent to you with the last Newsletter), which covered the 1987 calendar year, were adopted. The accounts showed a small amount in general reserves and it was agreed it should remain there. The existing auditors, Burgess, Hodgson & Co, were reappointed. The result of the election of Committee members is detailed below.

List of ICPUG Officials Elected at the AGM held on the 7th May, 1988

Chairman	John Bickerstaff	Vice Chairman	Joe Griffin
Manager	Jack Cohen	Treasurer	Jennifer Goldsmith
Secretary	Peter Reeve	Membership Sec.	Jack Cohen
Legal Adviser	Alistair Kelman	Librarian	Joe Griffin
Publicity	Will Light	Editor	Bill Bremner
Co-Editor	Iain Graves	Co-Editor	Peter Hauke
Regional Organiser	Brian Wise	Area Co-ordinator	Will Light
Area Co-ordinator	John Smith	Languages Co-ord.	Brian Grainger
Minutes Secretary	Eileen Grove	Technical Co-ord.	Bavin Clarke
BACC Liaison	David Annal	Compunet Co-Ed.	Bavin Clarke
Compunet Co-Ed.	Jack Cohen	Compunet Co-Ed.	Brian Fowler
Compunet Co-Ed.	David Harrow	Prestel Co-Ed.	Jack Cohen
Prestel Co-Ed.	David Martin	Exhibitions Orgnsr	Janet Bickerstaff
Asst. Exhib. Org.	Jim Kennedy	Design Consultant	John Grove
Disabled Rep.	David Bate	Discounts Officer	John Bickerstaff
CBM Liaison	John Collins	Technical Adviser	Tom Cranstoun

Technical Adviser	Derek Hoare	Amiga Librarian	Peter Miles
Asst. Amiga Librn	John Bickerstaff	PC Librarian	Tim Arnot
VIC 20 Librarian	Joe Griffin	128 Librarian	Chris Wright
PET Librarian	Joe griffin	64 Librarian	David Miller
Plus4/C16 Librarn	Richard Hunt	Machine Code Crse	Fred Offler
Advertising Mgr	Peter Hauke		

After several years unchanged it was agreed to increase the annual subscription rate from £10 to £13 for UK members (European and surface-mailed overseas members will pay £3 extra and airmailed members £13 more on the new rate). The increase will be effective from 1st January 1989, and is still much less than that charged by other groups and less than the cost per year of purchasing commercial magazines sold from high street shops. During the last five years the number of pages in our Newsletter have increased by about 100% and the number of words per page (brought about by a change in typeface) by about 50%. We believe that our Newsletter (or journal as many members describe it) is the best publication available for Commodore users.

A vote of thanks was proposed from the floor of the meeting to all the retiring committee members.

When is a disk drive not a disk drive?

Amiga owners often ask, since all machines come initially with one drive only, which should come first - expansion RAM or a second disk drive? If you own an A500 the cost of either a half megabyte of RAM or an external non-Commodore disk drive is around £100, making the question even more difficult to answer. I would go for the second drive, since 512k of RAM is sufficient for most applications on the Amiga. However, creating a RAM disk can reduce the need for continuous disk swapping. This may be more suitable for those of you who particularly wish to run those RAM consuming graphic-type programs.

With an A1000 the cost of expanding RAM by half a megabyte is more expensive (assuming that you have already spent £50 adding the second 256K of RAM - a must). However, I think that the use to which you to put your machine will again dictate which comes first, the RAM or the extra disk drive. One of the non-Commodore external drives should be satisfactory.

A2000s and B2000s already have at least 1Mb of RAM in situ, so the second drive seems to be the first priority. In this case you should carefully consider whether to purchase a Commodore or non-Commodore drive. For normal use it seems that the latter is acceptable. However, should you ever contemplate installing a Bridge Board then beware. Only the Commodore external 3.5" drive will provide PC compatability when plugged into the rear of the Bridge Board and used as drive B within the MSDOS system. It does work as a 720K PC-type drive, reading and writing quite satisfactorily - I have one and it does. Non-Commodore drives however, do not work as PC drives so consider he options very carefully if you own an A2000.

In closing this edition of Chairmans Chatter I would like to say a special thank you to everyone who came to the AGM. Your interest is appreciated. Finally, a message to all members - we have booked a stand at the June Commodore Show (3rd to 5th). Look us up if can.

PM (firmly): Now look here, you - in my joint, everyone eats, no matter what they look like.
JB (nicely): C'mon, just one byte.
PM (wisely): You may have to open its mouth first, John.

ICPUG SOUTH EAST GROUP

by Janet Bickerstaff

SOUTH EAST GOES WEST

Once again over twenty members of the South East Group hit the trail and headed West. They were not seeking gold nuggets, but treasure of a different kind, another weekend of computers and gourmet food at The Queen's Armes Hotel, Charmouth, in Dorset!

Following the highly successful weekend break last October, it was decided that we repeat the venture in April, with even more members present. This time we found the travelling easier and everyone arrived in good time for the superb dinner on Friday evening, which set the standard for the weekend.

Computers were unpacked and set up almost immediately, and deep and earnest discussions on the merits of programs and machines began over suitable refreshments from the bar. Meantime, the ladies had retired to the lounge to enjoy their coffee, mints and liqueurs, accompanied by various of the dogs and cats owned by Pete Miles and his partner 'Nic' Nicholson.

The friendly atmosphere is one of the features of this very comfortable hotel and flows from Pete and his wife Jenny, 'Nic' and Andrea, right through to the family pets, who ensure that the visitors receive a warm welcome. Pete's daughter, Pip, had a new acquisition, a rescued border collie called Ben, and Joanna Nicholson even introduced us to her white rats.

It was decided that breakfast be brought forward so as not to miss a single minute of computing time, and following a generous helping of 'The Full House' (bacon, egg, sausage, fried bread etc.) the day commenced.

Local National members from the surrounding area joined the group and the South East Chairman, John Bickerstaff, opened the proceedings. Joe Griffin gave the first talk on Magnetic Media Problems, followed by Simon Tranmer on The Relational Database, with reference to Superbase. Brian Fowler led a workshop session where everyone had a chance to question the experts. There was time for experiments, and he demonstrated the 64 emulator running on an Amiga, and even loaded the PET emulator into the 64 emulator [proving that the need is for downwardly compatible media - Ed.]. Unfortunately Joe Griffin's PET guru program did not display in red as he had hoped!

After an excellent buffet lunch, complete with gateaux and cheesecake and washed down with refreshments from the bar, the afternoon began with Jack Cohen talking about Data Transfer, in particular the PC to and from the PET. Peter Reeve discussed the Virtual Disk, and David Prenctice's subject was Shell on the Amiga.

Twenty-six of us sat down to a sumptous meal, each person able to choose from the extensive menu and accompanying wines. However, within an hour or so, some were observed creeping back to play with their computers.

On Sunday Don Skene began with Archives, Backups and Libraries. Then Tom Cranstoun told us about ARP. Not Air Raid Precautions, (for those of you old enough to remember such things), but Amigados Replacement Programs. In the meantime there had been 'noises off' coming from the direction of the back sitting room for some considerable time, and we found David Annal and Iain Graves had been extremely busy setting up a very interesting demonstration of the MIDI system, which kept some of us quiet until lunchtime.

The youngest member of the party was seven-month old Stephen Kennedy, who was following in father's footsteps with a bottle or two of the best (fruit juice of course [his dad had made off with the Gripe Water - Ed.]). He was very well behaved until he made it clear that he did not appreciate MIDI and Rosina decided it was time for his lunch.

A buffet lunch revived flagging minds (some had been up until 3.30 am trying to sort out a problem on Tom Chorley's Amiga). Then Peter Miles closed the session with a selection from the Amiga Public Domain library.

Local National members were keen to start their own group, based temporarily at the Queen's Armes in Charmouth, and anyone interested in attending a meeting should ring Pete Miles on 0297 60339.

And so the weekend ended. The ladies had made the most of the rather bad weather and some had been to Bridport and Lyme Regis. Nearly all had taken long walks to work off the inches gained, but only succeeded in whetting the appetite for the next delicious meal. The computer fanatics had talked incessantly, only breaking off to eat and occasionally sleep, and a great time had been had by all. We hope to repeat the whole thing again next year.

ANIMATORS APPRENTICE

By Iain Graves

Animators:Apprentice (from now on A:A) from Hash Enterprises is one of the latest animation programs to appear on the Amiga, and is described as producing Disney-like animations. The programmer Martin Hash is a professional animator and it shows. He has taken his craft, broken it down into its basic parts and written a program the likes of which have not been seen on the Amiga to date. Once you begin to think like an animator, A:A is as user-friendly as any complex, competent package available for the Amiga. It does not attempt to demonstrate the skill of the programmer, and is it not written the way amateurs think it should be done. This makes A:A unuser-friendly and awfully boring for the dabbler, which is actually a compliment.

There has been a spate of 3D object creation and animation packages recently, Videoscape3D; Sculpt 3D, Animate 3D and Silver but they have all been oriented towards moving mechanical objects whereas. A:A is organic, breathing life into the humanoid figure - you may have seen its Walking Smurf demo.

A:A comes on three disks, the master program, (containing seven modules, which we will be looking at later) a 'FRAMES' disk, 'MATTES' disk and an A4 ring-bound manual. Although the manual is comprehensive, it is more like a collection of technical notes, each section being dealt with under it's own heading, including tutorials. Many of the operations are made with the mouse but, for more precise (sometimes necessary) control, detailed INFO or similar parameter requirements, numeric input from the keyboard will be necessary.

Hardware requirements

A:A requires at least 1.5 megabytes of memory to function correctly. It is also a great eater of storage space, using a whole disk to store an animation of anything between 10 and 30 seconds, depending on the complexity.

The Character Module

Movement in animation, as in the living vertebrate, is governed by the skeleton. This program begins by allowing you to generate 'bones' and join them together to make your own skeleton (Amiga style). 'Bones' are put in quotes because these objects serve as the axes of movable pieces of anatomy, which may include anything from eyeballs to elephants trunks.

The module begins with a screen on which, if you load in the demo man, you will see boxes connected by lines. A box represents bones and the lines joints. Here is one illustration of my opening remarks about A:A's non-animator unuser-friendliness. One would expect the top box to be the head but no, it is the pelvis. The pelvis is called the 'Patriarch' or master bone because, in animation, its movement governs that of all the others.

Bones are classified as SIBLINGS or DEPENDENTS. Sibling bones partner others horizontally (eg. left and right shoulder) and Dependents depend on each other vertically (eg. left shoulder and its upper arm).

To create a skeleton from scratch, cancel the offer to load in the Character file, and from then on click on the box ADD a Sibling etc, and name it ADD anybody for the first box. The screen changes, and you can now draw the bone as a single straight line to size in one of two planes, the left mouse button in the x/y plane, as viewed from the rear of the figure, and the right button in the z depth plane, as seen from the top. A third screen will display the developing skeleton (CHARACTER) and permit you to mouse-drag the limb into its joint. F1 and F2 (function) change the view-point without disturbing the bone. If you wish to make up a full-screen standard figure (that is to say, a 6ft male of model proportions) make the head 68 pixels high. This size yields a figure eight head-units tall, where each head-unit is equally divisible into thirds and quarters, and allows for the fact that A:A reduces each bone to half size. Knowledgeable artists will be able to scale the female and juveniles form accordingly. As the bones are only reference axes for limbs that later will later receive a 3D sheath of flesh it is sufficient, at this CHARACTER module stage, for each bone to be a single straight line and the figure a jointed stick man. The demo figure supplied on the master disk looks like one of those bewitched brooms in the Sorcerer's Apprentice sequence in Disney's Fantasia. Perhaps Mr.Hash saw the resemblance too.

The Action Module

The jointed assembly (I avoid the general use of the words figure or character for reasons that should become plain) is known as a CHARACTER and is passed to the ACTION module for animation in absolute rather than relative movement. That is to say, the motion of the limbs are in relation to one another (call it running on the spot), rather than movement relative to its environment (running round the set) which is determined by the next module. A limb can be moved (TWEAKED) in any of the three planes by the left and right mouse buttons. You will come across the command EASE. 'EASE IN' is to accelerate and 'EASE OUT' to decelerate.

The Director Module

The Action file then passes to the DIRECTOR module for choreographing on a stage. From here its action can be viewed from any distance and angle by a camera icon (representing the observer's viewpoint in the final product, which can be previewed in a viewing frame) and lit by a light source represented by a sun icon. Not only can the camera pan, truck and zoom, and the light source be placed at any position and height, but the stage also can be rotated and raked. A Character's relative movement across the stage is represented by two or more circles connected by lines. A line denotes its travels in any one path or plane and a circle (NODE) a change in direction.

Within each Node there is a rotatable arrow (ORIENTATION) determining the Character's orientation along its path, permitting it to walk, for example, backwards. During any one set known as a SKIT (paths and nodes) it can only perform one action. If it carries out another action (such as sitting down) a second Skit pattern must be laid down and connected by superimposing the first node of Skit 2 on the last of Skit 1 (use the NODE LIST if you have difficulty in clicking the right Node).

A figure may often be walking and talking at the same time, requiring separate animations to be created. In other words, a walking, talking figure needs to be composed of two characters (head and body). As far as the program is concerned, the character strides in from stage right with a head hovering just above its neck rabbiting away with no apparent connection between them, other than they share the same taste in ties. As long as the parting doesn't show, who cares?

Since the head and the body are separate characters doing different things they require separate skits. On the other hand, although the performer is po-faced, stiffnecked and not altogether portraying Anne Boleyn in Act III it is easier to treat the head as just another bone in the body using the same Skit. Other figures can do their own thing in the same animation. The Skits that direct them have no connection with the first, other than for dramatic effect. The entire scene can be auditioned in the REHEARSAL module.

The Sculpt Module

All the action, so far, has been performed by our simple stick-man and his talking head. Now we must flesh him out and give him a face, perhaps our own.

The Sculpt module takes bitmapped images (such as those produced by DeLuxe Paint or captured by the Digi-View digitizer) and renders these 2D images (or MATTES as the program calls them) as 3D objects. You must make up a set of mattes for each single moving part of your character. Each set must contain a matte showing each significant aspect of the subject that will be visible to the observer. For example, a fairly regular shape like a thigh which may only need to rotate in the horizontal x,y axis will only require two mattes: a front view, the 'VISAGE' and a 'PROFILE'. Now comes the meaty bit, if you'll pardon the pun.

Each image, when processed by Sculpt, goes through a sequence of events not dissimilar to that of the skewered meat in your local kebab take away. The thigh bone that you created in the character module at the beginning represents the skewer or spit, as it were, passing through the fleshy thigh as the vertical or x,y axis. We start by kebabbing ('SLICE'ing) the limb thigh in the horizontal plane. The main sculpt window contains three boxes. Into the first we load the 'VISAGE' thigh matte, into the second the 'PROFILE'. In each box is an adjustable vertical line representing the spit on which we place our piece of meat. Then we adjust a vertical line passing through both views of the thigh to indicate from where the slicing is to begin, and then, after registering it, where it is to end. The program will then, in ways I cannot fathom, do the equivalent of rotating the unfortunate member on its x,y axis and carve off 4 segments which will appear in the third box below. If the character is going to rotate over and under in the z axis then you must also create mattes for TOP and BOTTOM. If the long-suffering limb is to move in the z direction then we load the TOP and BOTTOM mattes in the same boxes and repeat the process.

The demo mattes supplied, which make up a talking head and a little walking man, have filenames ending in v, p, t and b, which stand for Visage, Profile, Top and Bottom Mattes respectively. Where a file name ends, for example, with vp it means that the matte (as would be the case with the thigh) looks the same from both views and is interchangeable.

The Record Module builds the segments up into a 3D image frame by frame, each of which takes many minutes.

The Display Module plays back the animation.

Problems

As the CHARACTER module insists that all progeny bones are vertical, and they can only be assembled and viewed from the back and the top, I had difficulties assembling anything other than erect bipeds. If that is an inherent problem I would imagine, although I haven't tried, that it can be remedied.

Perhaps one can assemble a dog, for example, standing on its hind legs at the Character stage and then pose it in the all-fours position in the Action Module. While experimenting with the DIRECTOR module I amended the demo choreography for the walking man and saved it to my newly formatted DATA workdisk. When I tried to load it back in A:A crashed. This occurred because I assumed that the choreography file I had produced somehow included all the necessary information, rather like a Script file in Aegis Animator, or if A:A wanted more files, it would ask for it as it had faithfully done so in the previous two modules. But no, not a cheep from A:A nor a mention in the manual. Apparently A:A wanted the demo man 'Character Hand Action' files from the disk which, of course, weren't there.

So when you make up work disks always ensure that the new Data disk has all the right files all on the same disk and if you are using the demo man for example, copy across all his files from the original, making sure that it contains directories CHAR, ACT, CHOR and SEG.

While A:A supports HAM in 4096 colours Mr.Hash appears to insist, when producing mattes, that we use DeLuxe Paint which does not support this mode, or at least, not in more than 32 colours. The reason for this is that in order to load mattes into the sculpt boxes they must be of a specific size and lie at specific screen coordinates. Only DPaint, to my knowledge, displays coordinates. Furthermore, the matte must be 10% oversize vertically. Again, DPaint is the only package which gives infinitely variable sizing in selected directions (Stretch function). However, by using templates and a little trial and error, I see no good reason why you can't load in a full HAM image from Digi-Paint or from Digi-View via the Butcher or Pixmate imaging utilities.

A:A cannot accept multi-colour backgrounds. Mr.Hash suggests dubbing the final A:A animation onto a background held on a video recorder via a Genlock device. Although I haven't tried it I feel that since A:A can output IFF files frame by frame it should be possible to import each into a paint program as a brush and print it on a background.

Conclusion

It is difficult to give an objective opinion about a package which I have not used over a long period, nor where there isn't another of its kind available (except for the Macintosh I believe) with which to compare it. Certainly, A:A does what it says it should and is, once you begin to think like an Animator, as user-friendly as any complex competent package can reasonably be. There will be many who think that A:A is a ponderous means of producing animation, and believe that the computer will replace a manual skill, not understanding that animation is one of the most skilled and demanding professions. It takes twice as long to train an animator as it does to train a surgeon. What do you want, miracles?

Certainly, starting from scratch, it will take you some time to produce something with A:A, but once you have made up a library of figures and interchangeable anatomy, making an animation, apart from the processing time taken by the Record module, (which can be done overnight) is far faster than any other method I know, traditional or micro-computerized.

In short, the fully set-up A:A becomes an artist's life-model simulator with auto-sketch function. Traditional artists in general and cartoonists in particular would find a model simulator useful, although less fun. Cartoonists, like their close relative the pornographer, demand poses and view-points of their subjects which are not normally possible in nature. Such artists can skip all but one of the frames at the Record stage.

This program is definitely not for novices, it takes a lot of time to master. It's not cheap either. If you are in doubt or you just want to make sure that this is the right program for you then contact Martin Lowe at the address at the end of this article who can supply you with a video and demonstration disks.

Available From:-

The Amiga Centre Scotland,
4 Hart Street Lane,
Edinburgh. EH1 3RN
Tel 031-557-4242

***

SPREADSHEETS 1

by Brian Grainger

```
    A  B  C        D        E        F        G        H        I        J

 1                                                  STEP  ACCRUED     REAL
 2             WITH-                   INTEREST INTEREST INTEREST  BALANCE
 3   DATE    DRAWALS RECEIPTS  BALANCE RATE (%)   AMOUNT  TO DATE  TO DATE
 4 -----------------------------------------------------------------------
 5 87  7 31                     100.00     5.00
 6 87  8 17             20.00   120.00     5.00     0.23     0.23   120.23
 7 87  9 15             25.00   145.00     5.00     0.48     0.71   145.71
 8 87 10 21    15.00            130.00     5.00     0.72     1.42   131.42
 9 87 11  9             50.00   180.00     5.00     0.34     1.76   181.76
10 87 11 30                     180.00     4.00     0.52     2.28   182.28
11 88  1  4              5.00   185.00     4.00     0.69     2.97   187.97
12 88  1  4             20.00   205.00     4.00     0.00     2.97   207.97
13 88  1 21             10.00   215.00     4.00     0.38     3.35   218.35
14 88  1 31                     215.00     4.00     0.24     3.59   218.59
```

Above is an example of a spreadsheet. Just recently a number of events have occurred to renew my interest in spreadsheets. While the Newsletter features extensive articles on the use of wordprocessors and databases, an article on this third stalwart of off-the-shelf software has been lacking. I intend to make up for that omission and introduce the considerable benefits of using spreadsheets in this series of articles.

To start with, a bit of history. The first spreadsheet program was called VisiCalc. Its aim was to turn the computer screen into an electronic piece of paper. The user could segment the screen into rows and columns. On each intersection was a 'cell' which the user could fill with text, numbers, or formulae which used other cell entries for data. This was analagous to writing assignment statements in BASIC. Since the electronic paper could also be printed easily, the PRINT command of BASIC was covered, along with formatted printing. One of the other major features of VisiCalc was the ability to copy a range of cells from one area of the electronic screen to another. Cells which contained formulae were copied with their cell references altered. This new reference, relative to the old one, was identical to the relationship between the screen position of the copy and the original. This gave the equivalent of a BASIC FOR...NEXT loop. It ought to be clear that VisiCalc enabled the user to write programs without the problems usually associated with this activity.

Early members of ICPUG will know that I was enthusiastic about VisiCalc on the PET and used it for my work during 1980. A number of articles were also written for ICPUG SE and National. It is widely recognised that VisiCalc was THE program that helped to sell the microcomputer, in particular the Apple, to business users. The world owes a great debt to Software Arts, the company that produced VisiCalc.

Eventually the IBM PC arrived, legitimising the use of microcomputers within business corporations. Unfortunately, the authors of VisiCalc had formed a new company and much litigation ensued with Software Arts over the ownership of the rights to VisiCalc. This delay enabled a new company called Lotus Software to introduce a spreadsheet for the IBM PC which they called Lotus 1-2-3. The effect of 1-2-3 on the IBM PC was identical to that of VisiCalc on the Apple. Sales of both shot up. Since that time Lotus 1-2-3, which I shall now call Lotus, has been improved and despite many imitations has become the de facto standard for spreadsheets. It has contributed enormous profits for the Lotus Corporation and spawned an industry of add ons all by itself.

Now to the reason why I have suddenly become interested in spreadsheets again. Firstly, I have started to use Lotus at work and can appreciate the power it gives the user. Second, I have seen Lotus used by others for tasks I would not have thought possible. It can be a graphic aid as well as number cruncher, simple wordprocessor and database, or producer of graphs. Finally, Analyse2! has appeared as an Amiga business package. Analyse is a Lotus look-a-like, adding the use of mouse and pointers to greatly improve its ease of use. No doubt Lotus for OS/2 and Presentation Manager on the IBM PS2 will be similar, but once again we have a glimpse of the future on the Amiga.

I have put forward an idea of what a spreadsheet can be used for, and I strongly recommend to those who havn't got to grips with programming to look at one as an alternative problem solver. Even expert programmers find them valuable in simplifying life. That is how the example at the start of this article came into being. It was easier to solve my problem with Analyse than to write a BASIC program on the Amiga.

What I aim to do in this article provide an introduction to using a spreadsheet. Future articles will cover the use of macros, providing some programming capabilities, and user-defined menus to enable the easy management of customised spreadsheets. I will use the above example as my base, but I will welcome correspondence and ideas from others in the same way that Super* Corner has developed. I now regard a spreadsheet as a straightforward programming language, so it has wide uses. Although I will use Analyse for examples, with any differences for Lotus (on PCs) and VIP Professional (on the Amiga) noted, the articles will be equally applicable to any Lotus like spreadsheets. As these exist for the 64 and 128 and Plus4 etc, I do not wish to be accused of neglecting owners of these machines!

Let me first define the problem. I have a savings account with the Halifax Building Society. Every six months they tell me what interest the account has earned. However, I have never been able to work out if the amount calculated is correct. My problem, therefore, is to create a program into which I can input details of receipts, withdrawals and interest rate changes, and produce the total amount of interest accrued at the end of the six month period.

This is an obvious example of number-crunching. A BASIC program could have been produced, but since my account passbook was similar in layout to a spreadsheet, here was an alternative solution, and easier to set up. The spreadsheet at the beginning of this article is an analysis (with ficticious data) of the six month period from 1st August 1987 to January 31st 1988.

I knew that the interest was calculated on a daily basis but only added to the account at the end of the period. This meant I had to provide the dates of each transaction as input and calculate the interest obtained between each transaction. This interest could not be added to the balance or future interest calculations would be incorrect.

The structure of the spreadsheet could now be defined. I set up the first 6 columns identical to my passbook for easy checking. The date format enabled me to use the date functions built-in to Analyse. A column was needed for the interest rate and the amount of interest. The last two columns were added to provide me with a running check on the real state of my finances. In addition, the last cell in column I, (I14), is the value of the interest to be added to my balance by the Society. This was the result I wanted to check and could be regarded as the output.

The next step was to define the width of the columns so I could view the results on the screen. The default width of a column is 9, adequate for the money columns although it did not fit on one screen width. So, I reduced the date columns to a width of 3, the minimum required to see a 2 digit number, resulting in everything appearing on the screen. With Analyse this is very simple. Point to a cell in column A and select Worksheet - Column Width -Set from the menus and input 3. You could also use the keyboard by typing /wcs3. With Lotus or VIP you have to do the latter as they don't support mice.

Next came the headings in rows 1-3. Initially, these were typed into the appropriate cells. By default, all labels are left justified and it became clear that for presentation this needed to be changed. Centering usually works, so I decided to centre all the labels on rows 1-3. From Analyse you select Range - Label - Centre, point to A1 and while continuing to point, (holding the left mouse button down), move to J3. You will note that the range is highlighted while you move the mouse. It's so easy. From the keyboard it is /rlca1.j3 which also works for Lotus and VIP. Spreadsheets users will know that the cursor keys can be used to point to cells if a mouse is not available and this is on the whole easier than explicitly defining the cell ranges. When we examine macros later it will be necessary to give explicit cell references. Having done this the DATE label wasn't quite right so I put a D in A3 and ATE in B3 and right justified both. It is all a bit trial and error but this is the advantage of spreadsheets. Imagine the time spent in getting a format right in BASIC.

After a heading we always draw a line. Point to cell A4 and enter as data <backslash>-. Any character after <backslash> is repeated across the entire width of the cell. The rest of the line? Simply copy A4 from B4 to J4. Select Range - Copy, click on A4, move the mouse to B4 and point the range from B4-J4. In a flash you have a dotted line. As an added advantage if you change the width of the cells later the dotted line automatically adjusts. Not so easy with BASIC! To copy from the keyboard Analyse requires /rca4<return>b4.j4. Lotus and VIP are different here and use /ca4<return>b4.j4.

The first line of data, row 5, provides the initial balance for the start of the period as well as the interest rate that prevails. To enter this data simply point to the cells and type. Having completed that you will notice that the value in F5 has come out as 100 rather than 100.00. Never mind. Format the cells to be fixed with 2 decimal places. A bit of thought suggests all the cells in columns D-J need to be this in format as well as every row of transaction data. I will assume up to row 26 will be enough (since that is what Analyse can display on one screen!). I can format all those cells by /rff2<return>d5.j26. It will be easier to use the menus and mouse but from now on I will write the key strokes as this is simpler to write in an article (and poor old Lotus users have to use them anyway!).

Now comes the bit where thought is required. In rows 6 onwards we will be entering transaction data, namely the date and amount of withdrawal or receipt. The rest is calculated. What we do is to set up the formula so that when data is added later the results appear instantly. Let us look at each formula in turn:

A new BALANCE will be calculated from the old one by adding a receipt value or subtracting a withdrawal value thus:

`F6=F5-D6+E6` (an empty cell has a value of 0).

To enter this formula point to F6 and type :

```
+F5-D6+E6
```

You should find the value of 100 appear in F6. Personally, I find this messy, it should not appear until a transaction is entered. Well, lets use the @IF function. (I forgot to mention that spreadsheets can mimic BASIC IF statements!). A transaction will be entered when A6 is filled so type the following instead of the above formula:

```
@IF(A6>0,+F5-D6+E6,0)
```

You should now find the 100 in F6 changes to 0. Not perfect but better. Lotus version 2 users can even suppress the display of 0 values by /wgzy.

The INTEREST RATE will remain unchanged unless the user inputs a new rate:

```
G6=G5
```

Using the @IF function again point to G6 and type:

```
@IF(A6>0,+G5,0)
```

The amount of interest accrued since the last transaction will be a fraction of the yearly interest rate multiplied by the balance. The fraction will be the number of days since the last trnsaction as a proportion of the year, which I shall assume is 365 days. An @DATE function exists to calculate the number of days since January 1st 1900 so this can be used to calculate the number of days between two dates. Point to H6 and type the formula:

```
@IF(A6>0,((@DATE(A6,B6,C6)-@DATE(A5,B5,C5))/365)*(G5/100)*F5,0)
```

The formulae for I6 and J6 should be obvious so point to I6 and type:

```
@IF(A6>0,+I5+H6,0)
```

Point to J6 and type:

```
@IF(A6>0,+F6+I6,0)
```

That has covered row 6. Since the same principle will apply to all transactions we can copy the contents of row 6 into the subsequent rows 7-26. The cell references in the formulae will automatically adjust as well. We therefore select range - copy from the menus point to A6 and point the range A6 to J6 (keep the mouse button pressed). Release the button, move the mouse to A7 and point to the range A7 to A26. When the button is released all the formulae are in place. From the keyboard this is /rca6.j6<return>a7.a26 when using Analyse or /ca6.j6<return>a7.a26 from Lotus or VIP.

The sheet is now ready for use and should be saved to disk. It can then be called up when receipts or withdrawals are made. A couple of points are worth mentioning in use of the sheet. When the interest rate changes, simply add a transaction where you change the formula in the G column to the new interest rate value. Because of the way dates are subtracted in the formula for interest the new rate will not apply until the day following that given in columns A, B and C. The date should therefore be entered as that of the day before the society says the new rate applies. For example, a rate of 4% applies from the 1st December in the above example. Thus the date in row 10 is 30th November. Because the Halifax do not consider any new balance after withdrawal or receipt as applying until the day following the transaction it is okay to put the transaction date for such transactions. I do not know whether this will be different in other accounts.

Well that is it for this time. I want to finish by giving the standardised way of describing rows 1-6 of the above example which can easily be obtained from functions of Analyse, Lotus or VIP.

```
h1: ^step
i1: ^accrued
j1: ^real
d2: ^with-
g2: ^interest
h2: ^interest
i2: ^interest
j2: ^balance
a3: d
```

```
b3: ate
d3: ^drawals
e3: ^receipts
f3: ^balance
g3: ^rate (%)
h3: ^amount
i3: ^to date
j3: ^to date
a4: /-
b4: /-
c4: /-
d4: /-
e4: /-
f4: /-
g4: /-
h4: /-
i4: /-
j4: /-
a5: 87
b5: 7
c5: 31
f5: (f2) 100
g5: (f2) 5
a6: 87
b6: 8
c6: 17
e6: (f2) 20
f6: (f2) @if(a6>0,+f5-d6+e6,0)
g6: (f2) @if(a6>0,+g5,0)
h6: (f2) @if(a6>0,((@date(a6,b6,c6)-@date(a5,b5,c5))/365)*(g5/100)*
    f5,0)
i6: (f2) @if(a6>0,+i5+h6,0)
j6: (f2) @if(a6>0,+f6+i6,0)
```

If any of you have some interesting spreadsheet applications send me a copy of the sheet plus the formula dump, like the above, and we can share them with the rest of ICPUG. Analyse, Lotus or VIP users may like to send a disk with the example on instead.

Next time, I will cover how to reset the sheet ready for a new interest gathering period, and creating macros to get this facility with a single key press.

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Large Software discounts given to members quoting membership number. Members should ask for Mark or Mike.

IAIN'S INSCRIPTIONS

by Iain Graves (Newsletter Co-Editor)

Well, so another journal hits the streets. It's been a hectic time to say the least. After my Amiga A500 floated away I decided to purchase another from a certain ICPUG-approved dealer. That's where my troubles began.

After a very prompt delivery (next day) I set the machine up and turned the power on, and, well... nothing! Dead as a dodo. The power supply was duff. Brilliant. I rang the dealer and explained my plight.

"Certainly, sir, a replacement will be in the post tomorrow." Tomorrow came and went, as did the weekend. Still no power supply, so I rang them again.

"Very sorry sir, we seem to have no record of sending one. We will put one in the post today (Tuesday) recorded delivery.". Fine. I wait another three days. Still nothing. I ring again, and the conversation goes as follows:

IG: "Hello, this is Mr Graves. It's about my power supply for the Amiga."

SHOP: "Hold on a minute." 10 minutes pass.

IG: "Hello? Yes, it's about the power supply you were replacing for my Amiga, the one you dispatched Tuesday."

SHOP: "Hold on please." 5 minutes later a woman comes to the phone, "Hello sir, which power supply did you order?"

IG: (slightly annoyed) "I didn't order one, I'm waiting for a replacement."

SHOP: "What's your address sir?" I give the woman my address and she goes away, and the phone is picked up again by another bloke, "Hello sir, is that the replacement supply for the Amiga 500?"

IG: "Yes."

SHOP: "Hold on please." By this time I'm slightly fed up, my phone bill's running up and I'm getting nowhere fast. Then, "Hello sir, is this the replacement we sent Tuesday?"

IG: "Yes."

SHOP: "Hold on please." Steam is now rising from my ears. "Hello, yes, I'm sorry but we don't have a record of sending one out to you," (AAAARRRRGGGGHHHHH!) "but somebody else just said you did. Hold on please." (GRRRRRRR!!) "Hello sir, my mistake. We did send you one, hasn't it arrived?"

IG: "No."

SHOP: "We'll send another right away". I've heard this before, somewhere.

IG: "Okay,thankyou."

Well, you guessed it, another weekend passes, and no power supply. I ring again and get the same rigmorale as last time, with whoever not knowing whatever. They finally agree to send another (third) supply by Securicor to be delivered the next day. It didn't arrive, need I say more, for another 4 days! It finally turned up, and needless to say I was not impressed with the service and so by way of discommendation I have told you all about this.

I will not name the shop concerned except to say that they receive a copy of this journal and will doubtless read this. They're not situated a million miles from where I live. My suggestion to them is 'TAKE NOTE', for next time I shall not be so forgiving.

Onto other trials and tribulations. If you could see the pains I suffer when editing Amiga articles and transferring them from 3.5 to 5.25 disk you wouldn't believe it. This last week has been murder but we finally solved the problem. One tip if you are transferring between an Amiga and a 128: avoid using VT100 on the Fish disks. It has been the biggest pain of my life.

Needless to say, actually getting a system that works has taken a lot of effort by certain individuals: Joe Griffin, Brian Fowler, Tom Cranstoun and finally, my main man, David Prentice. If it were not for this gentleman's help, knowledge and programming expertise it would not have be possible.

As it would take so long to explain, if you would like to know how we accomplish the transferrance let me know by either letter or phone. I will write an article in next month's journal. [Readers may be interested to know that Iain finally got the system sorted out and the files transferred on the Wednesday Evening. As I was putting the Newsletter to bed on the Friday, this left little margin for postal delay. Thank Butterfield for Modems! - Ed.]

Just a few things to tie up now (as Ed's got his scissors out and is looking longingly at this spiel). Letters been flooding in, thankyou. It's nice to know that someone out there reads my waffle. You have, by a unanimous vote, rejected the idea of games reviews in the magazine, although one or two of you did like the idea. For you people, I might put one in later in the year just to keep you happy.

As for the BrainBoxes interface, several people showed interest in this device, and I have been in touch with BrainBoxes about this. The main criticism most people gave was the price. At the time of writing, BrainBoxes haven't got back to me, so I suggest anyone desperate for one of their transferral devices to contact them at this address and telephone number:-

Brain Boxes
25 Lynmouth Road
Aigburth
Liverpool L17 6AW
(tel) 051 220 7190

Many of your letters mentioned other things beside my original questions, so I have passed them on to Peter Hauke, my other co-partner in crime who edits the letters section. Hopefully you will find your letters printed in the future with answers to your questions and queries.

Finally, to close, you may have read my article about the BYTE BANDIT VIRUS in the last issue of the Newsletter. I downloaded this supplementary information from 'Newsnet', and I thought you all might like to know what it says. This is an edited version of a conversation between Leo 'Bols Ewhac' Schwab and Chad The-Walrus (strange people!):

Problem: I have the 'ByteBandit' virus (which I got for the purpose of testing), and it won't work on my machine with the FAST memory enabled (gives a GURU #4, at address 1902 immediately upon booting the disk).

Answer: Call BYTE BANDIT and ask for an upgrade.

I have spent a large amount of time trying to get a working BB virus. Finally, I thought maybe if I used NO FAST MEM it would work, and it did!

What an amateur programmer. He/she can't even write a virus that works with FAST MEM. It doesn't work on 68010 machines either. Mr/Mrs Byte Bandit is a FUBAR, no doubt about it. At least it means that a lot of us can relax a little and not worry overly about this virus. But let us keep in mind that even with this stupid bug, I got a disk with 508 generations of the virus on it, so it is STILL very potent.

Well, there you are. I hope this has amused some of you and been a warning to others. I have definitely rambled on long enough. Remeber, I welcome your letters, reviews, hints, tips and just plain comments, so don't be afraid to write or phone me, bye for now.

***

1520 SPECIAL INTEREST GROUP

The 1520 Printer/Plotter Group has over 200 members from HongKong to Finland, but mainly from the UK and the USA. Disk#3 and newsletter 3 are now being distributed to all who send disks plus return postage and packing. Contributions for Disk#4 are welcome. There are still talented programmers writing for the 1520!

1520 Group relationship to ICPUG

The 1520 SIG (Special Interest Group) is a group within ICPUG but entirely run by John Bentley and Wal Austin for users of the 1520. People who want to join the main ICPUG group must contact Jack Cohen, 30 Brancaster Road, Newbury Park, Ilford, Essex IG2 7EP, England, for membership details.

Obtaining 1520 materials

John and Wal act as contacts and distributers of software and hints, but are not funded in any way to do this. You must therefore send suitable postage and packing for the return of disks or newsletters. Overseas members should send International Reply Coupons, not cheques or currency. It often costs more to change a foreign currency note than its face value. We actually pay the bank to change it. Never mind what your knowledgeable mail clerk says, please send only IRCs.

Some people send in really grotty, damaged disks. We won't hesitate to return these blank because we do not intend to ruin our hardware. It is also rather insulting to suggest that the programs are not worth the outlay of a reasonable quality disk. If you don't like the programs you will still have a disk to use as you will. Please do not send any more crunched-up disks.

New programs

Most new programs are coming from our contacts in the USA. Unless we get programs we cannot distribute them. John and Wal have limited time to give to the group and less to write programs. Please let us have your hints, news and programs. We will then be able to supply much higher quality software. We only handle material which we believe is in the public domain. If members know of any copyright programs which we distribute they should let us know and we will delete them immediately.

Paper rolls

One member of the group has contacts in the printing trade and is negotiating getting rolls at much reduced prices. He would like to know who would be interested in buying good quality paper rolls at about 1/2 to 2/3 the price of Tandy supplies them [in other words, at a reasonable price – street-wise Ed.]. Please let John or Wal know.

Bryon Muncaster was so incensed at the price of paper rolls that he set about rolling his own. He buys white lining paper from his decorating shop, slips the rolled paper into 2" diameter draining pipe, and cuts 4.5" rolls with a Stanley knife. He says if it's slightly undersized it is better. I have tried it; it works and is much cheaper than buying the real thing. It's also fun staunching the blood!

Pens & paper

Meedmore, 28 Farriers Way, Netherton, Merseyside L30 4XL, advertise pens and paper for the 1520. They are rather slow to respond to orders and the materials are rather expensive but they do offer mail order and this may be of help to some members.

Ron Key informs us that members who cannot get to a Tandy store may like to know that Studio Arfon, 10 Eastgate St, Caernarfon, Gwynedd LL55 1AG (0286 261) and Opelco, Imperial Court, Station Parade, Virginia Water, Surrey GU25 4DH, (09904 4557) carry stocks of pens and paper and will do mail order. Studio Arfon also does repairs.

Colour Pengraph pens EB50/CP10 for the Silver Reed fit the 1520 and are in plentiful supply in Tottenham Court Road and in some branches of WH Smiths at around £5.75. Smiths also provide pens for one of the Brother machines which will fit the 1520, but are more than the price charged by Tandy. The ALPS plotter is almost the same as the 1520, and pens and paper designed for it will fit both. Cirkit Distribution Ltd., Park Lane, Broxbourne, Herts, EN10 7NQ (0992 444111) can also supply pens etc. We are indebted to Cyril Bannister for this and other items in this newsletter.

DIY pen filling

Ron Key fills his own black pens with stamp-pad ink from WH Smiths and then uses the printer on a 30 degree sloping surface to stop the ink running out. No doubt someone knows how to get the plastic plug out without destroying it - we could at least save on black pens and plot on horizontal surfaces! Is there anyone out there who has the knowledge?

MCP-40

This machine uses a very similar mechanism to the 1520 but has a Centronics port. It has the AXES command, like the Tandy, to make graph drawing much easier. Ron Key has sent in lots of interesting details of how to use the ORIC with this plotter. Several firms are selling these fairly cheaply and if you use a Centronics interface you may want to investigate it.

Chartplot 64

This was reviewed in newsletter2. The author, RC Wainwright, has replied to my article. He agrees with several of my criticisms and puts up reasoned and convincing arguments against others. I find his program very useful and I am learning to make it carry out lots of the things I want to do. I wish Mr Wainwright well with his versions for other plotters and other machines.

Bill Shepherd, who sent me a copy of The New Mexico CBM User's Group newsletter, has a BASIC program for keeping tags on stocks and sales but has no graphics output. I have suggested to him that he investigates interfacing it to Chartplot-64.

1520 still lives in The Plotting Shed

The Plotting Shed, 1315 N. 13th St., Boise, Idaho 83702 is run by a couple of very talented and enthusiastic people who write programs for the 64 and the 1520, amongst other things. They have some samples on our disks, and send out an advert done on the C64 and the Epson Hi-80, using programs similar to the ones developed for the 1520. It is most impressive.

They have an interesting Graphic Document Language, which is a text and graphic file formatting processor for the 64/1520 combination. It includes all four character sizes, pen colors (sic) and 16 linestyles, automatic page numbering. It can mix graphics and text and import graphics and command files. It is a very useful package for the production of small booklets and is great fun to play around with (that's what computing is all about, isn't it?).

They have promised to send us copies of their 5 disks for testing and review. They sell disks in two versions: the compiled program only for $14.95 and the source code and compiled version on the same disk for $19.95. USA members should include $2 for postage and overseas members $3. They have the GDL disk outlined above, a fractal disk, a mandelbrot set disk, a 3d-plot disk and a miscellaneous/utilities disk. Please write to them and not to us. Scott tells us that he issues his customers with a newsletter, having been so inspired by ours! The American QLINK has a library dedicated to 1520 programs so maybe we will get some from this source in the near future. He wants to know if there are sources for the plotter itself. Answers please to the Plotting Shed, 1315 N 13th St, Boise, ID 83702-3529 (208/336-5241), USA, not to us if the source is outside the UK. UK members who wish to purchase Scott's disks should remember that they must send dollars or dollar cheques and should be prepared to pay VAT etc. on the imports.

Using Paperclip with the 1520

Insert the dongle in joystick port 1. Load PAPERCLIP. Turn on the 1520.

```
OPEN 6,6,6: PRINT#6,1 <RET>
OPEN 3,6,3: PRINT#3,0 <RET>   (80 chars /line)
OPEN 2,6,2: PRINT#2,X <RET>   where X is pen colour
CLOSE2:CLOSE3:CLOSE6

RUN <RET>                     to access PAPERCLIP
[CTRL-O]                      to get DIRECTORY

Scroll to PET ASCII
[CTRL W]
[RUN/STOP]
[CTRL-HOME]
[CTRL-HOME]
[CTRL]-#6
```

If you wish, you can use the merge program in Appendix H to customise the program to omit most of the above stages. We have lost the name of the author of this advice - aplogies to him/her. Many people have asked us about WP programs and we usually advise EasyScript because we have a wedge for it. If members use other WPs, we would like to hear from them.

Cyril Bannister has also provided some simple instructions to interface Easy Script with the 1520 by using the *sa secondary addressing commands. There has to be a blank line before the *sa#,xx command and there should only be one *sa#,xx command per line:

*sa3 sets characters per line: 48=80; 49=40; 50=20; 51=10 chars per line
*sa2 sets colour: 48=black; 50=green; 49=blue; 51=red
*sa6 sets U/l case mode 49=lwr 50=upper. The device number is 6

CJ Williams of Ontario uses WORD WIZARD from Bubble Bus Software (87 High St, Tonbridge Wells, Kent TN9 1RX) as his word processor for the 1520 and is very pleased with it. Does anyone know if the company is still around. If not, I wonder if secondhand programs are available for us to test? (WGCA)

Disk Master program update

Several members were interested in versions of John Jakeman's Disk Master program. John has added some improvements. We will put interested members in touch with John if they write to us.

Bugs in past programs

We apologise for sending out bugged programs. Many problems have been caused by members loading programs, modifying them and writing them back to the same disk. Since the disks, which were sent to you, were copied on a 4040, this in itself will cause problems if you have a 1570/71 or 1541. You should not try to write to the master disk! Disk 1 is so full that any attempt to write to it may well cause it to become corrupted.

Other problems were caused by bugs in the actual programs. Some of you were sent advance copies of DISK 3. A few files on this were bug-ridden and we hadn't had time to test them. Those programs have been shelved until we have time to debug them (1999?). At least you had them for free - one of us paid lots of crisp crackling negotiables for a program that is supposed to work on the PC... but that's an entirely different tale for an entirely different group!

Some programs on Disk 1 had minor bugs and these are correctable by LISTing the code. Cyril Bannister has sent us some corrections and we hope to distribute the bug-free versions in future. We are most grateful to Cyril for his help and encouragement. We would like to know if you encounter bugs, but we would also be grateful for the corrections. John and Wal spend a lot of time duplicating disks and writing to members, so do not have a lot of time to sort out individual problems and correct bugs in BASIC programs.

We also believe that you will learn a lot more if you try to correct and modify the programs yourselves. It is highly unlikely that our programs will do exactly what YOU want them to do. We are not really in business just to provide programs to run once and forget about. We hope that our programs will give you ideas on how to write some of your own and at least provide some algorithms on how (or indeed how not to) go about things.

Are there any VIC users out there?

Dave Hill is an enthusiast who is feeling a little isolated. If there are any kindred spirits we will put them in touch. John Bentley has already converted some of our programs for use on the VIC. VIC users should contact him.

A cheap DIY plotter

Paul Boscott picked up a dead 1520 for a little over a fiver. He put in new cogs and a driver wire and away it went like new. We will try to persuade him to tell us how he did it. He wants to beg, steal or borrow (or even buy), a handbook. Wal will put you in touch with him if you can help.

Articles & hints

Several people have suggested that others write an article about some aspect of the 1520. We have published a couple of such articles in NEWS2 and we have included the most generally useful tips from letters which we get. We would be delighted to accept articles, on disk, in simple ASCII or PETASCII format, please. We do not have the time to convert from esoteric formats to the simple ASCII we have adopted for the disk versions of the newsletter. We are also interested in obtaining a useful minimal Newsreader program, which works better than the one we distribute. It has to be small in size and able to read a sequential file, printing it using the 1520.

Addresses of Editors

John Bentley, 38 Conway Rd, Taplow, Maidenhead, Berks SL6 0LD. John is the ONLY source of hard copies of the newsletters. Wal has now used up all his copies of newsletter 1 and is unlikely to be able to duplicate any more in the future. Please send a large self addressed stamped envelope to John if you require hard copy letters.

Wal Austin, Dept of Environment, Lipman Building, Newcastle Polytechnic, Newcastle upon Tyne. Wal is the main disk librarian and requests for disks should be sent to him.

Disk #3 programs

Apparently, part of the past troubles with disks has been because we have attempted to stuff them too full. We hope we have now got the right balance.

1520 DEMO and TUTORIAL are two programs that will be helpful to newcomers and also give the older hands an insight into presentation.

JOYSTICK-PLOT allows you to draw with the 1520 using a joystick on the 64.

3-COL DIRECTORY is a slightly better version of a directory printing programs which appeared on an earlier disk.

COSMIC MOLECULES is a bit of fun, and for you to modify and so produce your own mind bending piccies.

LABELS2 was submitted in response to an earlier newsletter and again is an updated version of a label writing program.

SPHERE, RAYS, CIRCLES are just that.

MIND WALLPAPER is quite a powerful program to draw functions etc and will pay delving into. Part of the fun of this is to find out its capabilities. This is not one for the load-and-run-and-if-it-does-not-complain brigade!

MANDELBROT will take 24 hours to complete, so leave it running overnight with a fire alarm on in the same room in case the computer overheats in frustration at the slowness of the plotter.

FOURIER and CHEMPLOT are for the scientists amongst you. If you have to ask what they do, they aren't for you!

LOGO was sent in by a member in response to a request for a logo for the newsletter. Since we are now essentially disk-based it may be of use to those who print out the letter. Many thanks to the other 3 who responded to our request for a LOGO and apologies for not using them.

TORUS and CONE are just that.

TWEETY PIE is in response to a reader who felt cheated that we advertised it on one disk and then had to wipe it off in order to get all the newsletter on it.

NEWS3 is what you are reading.

Finally, our thanks to the many nice people we have met and written to. They make it seem worthwhile to spend time and effort in keeping the little beasty alive. Sincere thanks to the few who provide us with programs. If we have not included them on past disks we may well in the future. If they require some reworking we will try to get around to it as soon as possible.

To the very few who feel that they have to complain and offer unsolicited and unwarranted abuse, we suggest they no longer consider keeping up their free membership to this SIG. and join some other group where their talents will be more appreciated. Or, make amends by contributing useful materials rather than complaining about turn around, documentation, quality etc. of free materials. Indeed, if they do ask for materials or information from us in future we will not supply them. But the offenders are not likely to be reading this unless they do have associates who pass on materials to them!

Contacts

If members wish, we are willing to include a section for SALES, WANTS, HELP etc. in the newsletter. We do keep a handwritten list of addresses and could put members with special interests in contact with one another.

TEXAS TALES

by Betty Clay, Arlington, Texas

Commodore users in Texas have had a special treat this month. Jim Butterfield came to visit. He spoke to my computer club (SCOPE in Dallas) on April 16, and to the clubs in Lubbock, Austin, San Antonio, and Houston during the following week. My husband and I tagged along on part of the trip, and I can tell you first-hand that the clubs were delighted to have the opportunity to hear Jim. Like clubs everywhere, they were meeting in schools or churches, and the facilities were not always perfect. The equipment sometimes did not permit everyone to see the demonstrations as well as we could wish. But Jim handled every situation as though circumstances were ideal, and the members were constantly telling me how much they were enjoying the presentations.

Some of our Amiga people did not come from a Commodore background and for many this was their first opportunity to meet Jim. They were not aware of Jim's talent for making complicated things sound simple. His introduction to the system software structures and to assembly language programming were especially well received. Since Jim is to speak for some of your clubs in June, you will probably be having similar experiences by the time this is printed.

Here are some of the things people bring up at every Amiga gathering here this spring:

AREXX

William Hawes, the author of CONMAN, has recently produced a commercial product called AREXX. This is an Amiga version of the standard REXX language, but before AREXX, I never knew that REXX existed. The Amiga certainly has had a broadening effect on my computer world!

AREXX is a language that makes it possible for programs to communicate with each other by message passing, so it does seem to be a natural for the Amiga. It will only work if the software has a special port for the AREXX messages to access, but much of the software coming out now seems to be providing that port. My own knowledge of AREXX has come entirely from reading, but the language is out, can be purchased for under $50, and is highly acclaimed. Thomas Rokiki, Matt Dillon, and others well-known to the public domain and shareware groups, are releasing new versions of their programs with AREXX ports.

So what is AREXX, and why should we want it? According to the experts, using AREXX is similar to writing macros for spreadsheets or word-processing programs. They say that it is very simple to do, requires no real knowledge of programming, and can be learned in an afternoon. Once learned, the user will be able to use any software packages that are properly equipped as though they were integrated packages. It does sound useful.

IPC

Another approach to the problem of integrating separate packages is IPC. This is currently just a topic for discussion on Usenet. A group of Usenet participants became excited by the prospects of letting any Amiga program communicate with any other, and set about designing a set of working rules and procedures. My files must contain at least a megabyte or two of suggestions they have discussed. Some of these programmers feel that they can design a process that is better than AREXX. Others want to design their own method because they want it to be free, while AREXX is a commercial product. Their plans call for a method different from AREXX while meeting the same needs.

If this process interests you, you may read the Info-Amiga disks for March. They will have almost every message about this movement, but be warned that it will continue into April. And May? All summer?

Diskettes

The proper choice of diskettes seems to be a constant topic of conversation here. In late 1985, when Amigas first arrived in Dallas, diskettes were very hard for to find, and quite expensive. Many of us purchased single-sided disks because nothing else was available, and which were abundant because they were used for the MacIntosh. At that time, I had disk failures almost daily. We didn't know, of course, whether the failures were due to the disks or the machines.

By the time we received version 1.1 of the system software, most of us in this area had come to purchase ONLY those Sony products marked double-sided, double-density. The failure rate dropped dramatically. We never really knew whether the success was due to the better disks or the better software, but we weren't about to trifle with success! I still purchase only the Sony products, and still insist that they be labelled double-sided, double-density.

As most of you know, I send you copies of every piece of software that comes my way. There are some other clubs to whom I send things, and I am the librarian of my club. It is not unusual for me to use 100-200 diskettes per month. I now purchase bulk Sony diskettes which are probably seconds or something, because they do not have the Sony name on the metal guard, only on the box. The diskettes themselves are packed in plastic bags that hold 50 per bag, and are packed in boxes of 400. We love to compare prices here, and I assume that you would also like that. The last disk purchase I made was for 1000 diskettes, and they cost $1.10 (US) each. We were told that the price will be nearer $1.50 soon.

I don't think I've had a new disk fail to format and copy since I found these diskettes, and that would be at least two thousand or more diskettes ago. There are failures, of course. Even these disks cannot survive being jerked out of the drive during a write operation or before they are properly validated. They react poorly to being placed beside the telephone or on top of my other equipment. Sometimes I get bad copies from others who just hand me a filled disk in exchange for an empty one. And if I try to copy a disk that had bad sectors, my equipment is not smart enough to restore those sectors.

All the same, I can heartily recommend these bulk Sony diskettes. Given any chance at all, they seem to work perfectly. It hurts a bit to pay more for the media, but it hurts even more for my software to fail after I no longer have access to another copy. It also hurts more to spend a large amount of time trying to persuade the machine to write on a defective diskette.

I don't know exactly what you have available in England. Perhaps the kind of disks I buy cannot be found there. Here, these are about the lowest cost of any double-sided disks we can find. Whatever you use, may I suggest that you follow the advice of Carolyn Scheppner of Commodore-Amiga Technical Support: If it doesn't say "Made in Japan", don't waste your time trying to use it.

And just one more word - many people are using single-sided diskettes and claim satisfaction with them. My own experience has shown that if both sides format properly, and if I use them only to hold backups of other disks, they usually give excellent service. When I must write to one again, though, trouble frequently arises. This is because the Amiga does not always use the same spot on the diskette when re-writing a track. It is entirely possible that on the first write, only good sections of a track were filled, but on subsequent writes, data is placed on a spot that was in the gap during the first write. A single bad bit can cause the loss of 22 sectors of data. Is it really worth the gamble?

The Great Amiga 3000 Demonstration in San Diego

During the first week in April, a report came on Usenet about the April 4 meeting of the San Diego Amiga User Group at which there was a demonstration of a preliminary version of the Amiga 3000. According to the report, the members expected a showing of some new software, and arrived to find one group of people setting up a machine and another group armed with cameras and notepads. When the meeting began, the club president announced that these were sales representatives from Commodore (setting up the machine) and magazine representatives from some certain Amiga magazines (with cameras).

The sales representatives started up their machine. There was a screen with a sticker pasted on it to identify it as an Amiga 3000 monitor. The circuit boards were in a case that looked like a 2000, but there was an A3000 sticker on that also. The sales representatives said that they had come to California to show the machine to some administrators at General Dynamics Corporation, and that they had agreed to come by the club meeting for a very brief showing before departing. They said that the technical representatives had caught an earlier plane. Then, they explained some of the features of the Amiga 3000 - 68030 CPU, 68882 math co-processor, new and enlarged versions of the copper, blitter, etc. They showed a graphics board and installed it in a slot, and discussed the hard disk that would be standard with the machine.

One of the major emphases of their presentation was to assure the members that the 3000 would not be a replacement of the A2000. It will, they said, be a machine to compete in the workstation market, and would not be considered suitable for home, business of other uses. For those, there would be continued upgrades of the A2000, and these upgrades could be obtained by purchasing cards for the current machines. The 3000, on the other hand, would have a 32-bit bus and 32-bit memory, and everything about it would be incompatible with the current A2000, including all of the software. They indicated that current A2000 owners who really wanted to move into that category would be offered some kind of a trade-up incentive when the machines arrived.

The excitement generated by this demonstration and the announcement on comms networks was tremendous. There were immediate flames at Commodore for making a machine that would be incompatible with those already owned. Great praise came forth in response to the increased capabilities of the new machine. There were many questions about price, date of release, etc. There were immediate denials from Commodore that such a machine existed.

Several days later, with excitement still racing across the U.S., the club president posted messages in strategic places announcing that the whole meeting was an April fool joke he had played on his club. The machine he showed was indeed his own A2000, with a Sony MultiSyncII monitor, a flicker-fixer he had borrowed, some special new graphics a friend had supplied, and some new cards he had borrowed from a friendly dealer. The camera crews and writers were friends from another area who had helped with his joke. The information had been gleaned from the announcements made at the Hannover Faire and from comments about those announcements.

Excitement again surged across the country. Some complained loudly that a club president could be so 'irresponsible.' Some declared that Commodore and the Amiga would suffer great and irreparable damage because of him. Most of us are inclined to appreciate the joke. Somehow, I thought you'd like it, too.

SUPER* CORNER

edited by Peter Hauke

Due to a little bad planning, I saw April and May fly past and somewhere along the way I seemed to loose a few days! I have so far managed to avoid buying a filofax but I was once tempted by a Cambridge (spit the word out) Z88! However, since we all come with our own portable computers installed at birth (if not programmed), I decided not to take the plunge. I have seen Jim Kennedy's Superdesk program on the C128, but as I am usually using my C128 for one thing or another, I cannot really use it as a diary/calendar. Now that I have an Amiga I might try and set up Superdesk on Superbase Professional. Or has this already been done? Write and let me know. I really do need an effective method of organising my time. I am useless at keeping diaries. What I require is a simple method of entering notes into a database and then printing them out in a variety of different forms. A Superbase Professional database with records linked to external text files springs to mind!

Paul Blair of Australia has sent me two interesting articles and I will include both in the next Superbase Column. I always like to try out everything that goes into this Corner and all programs need to be tested before publication. Rex Toomey, another prolific Superbase programmer, again from Australia, has sent me his Ezitree program. This is a genealogy application written for the 64 and 128. The Supertree column is now officially launched. Although this is primarily a Superbase column, I would be happy to review any genealogy package, even running under BASIC, for the sake of comparison. I have received a number of complaints about the Superbase Labels program. I am in the process of writing a new version which will eventually go into the ICPUG library. Any comments or suggestions will be welcome.

As Readers Write Editor, I see letters complaining about the lack of ICPUG support for a whole variety of older machines. As Super* Corner Editor, I have not received many letters concerning Superbase and Superscript (especially on the older machines) in the last month. It is very important to write and make suggestions. Super* Corner will always reflect the letters that people send me. If I develop a useful routine, then I will include it in the next issue. If the problem is interesting then I will bring it to the attention of a wider audience. If nobody writes anything then I will waffle on as I am doing now! And so onto more interesting topics....

Superbase Professional

Is Superbase Professional? I mentioned in the last Super* Corner that I was going to look into Superbase Professional and the Amiga, the flagship of Precision Software's range of Superbase programs. I have managed both, but as I have only had Professional for a few days, this column is not as long as I would wish.

First impressions of Professional: I'm impressed. I have been using Superbase for over five years now and I have a lot of good things to say about its various versions. I also have some criticisms. On balance I have always regarded Superbase products to be extremely good value for money. When I bought Superbase 64 and Easyscript, I was able to automate office procedures which had previously been achieved manually. It did not take me long to become disenchanted with the slow speed of the C64/1541 combination and after a year I upgraded to SuperOffice (Superbase and Superscript) on an 8296D. The twin 1 megabyte drives allowed me to further automate and simplify my complicated C64 system. Monthly invoicing as opposed to weekly invoicing became a possibility thanks to the extra disk space.

Unfortunately, I never managed to use SuperOffice in the manner I intended when I first purchased it. I wanted to design a programmable wordprocessor using the Script command in Superbase (see Superlink in Jan/Feb magazine). In reality, the link between Superbase and Superscript was too slow to be practical, but I found so many advantages in the 8296D and SuperOffice package that I was more than happy with my system. Two years ago I bought a C128 /1570 with Superbase and Superscript 128. I still wanted to design a programmable wordprocessor but again the link was too slow. Again I found so many extra advantages with the 128 system that I am pleased with my purchase.

And so we come to the Amiga. I saw Superbase Personal demonstrated almost a year ago. It was very impressive, but I could not justify buying it without the programming ability of Superbase. I waited, and waited, and waited. Earlier this year, Superbase Professional was released and I went out and bought an Amiga with a hard disk (among other bits and pieces). Was the wait worthwhile? This remains to be seen. Superbase Professional is without doubt a very powerful program and also very easy to use. It will take me quite a while though before I can fully appreciate its power and versatility.

Again, as with all the programs I have purchased from Precision Software, I am sure that I will find Professional to be lacking in some feature, or awkward to use on occasions, but this will not stop me from exploiting it to the limit of my abilities. Having played around with Superbase Professional for a few days, I can see so many potential applications that I am pleased I invested in an Amiga. I like Superbase Professional. I am happy to support it in this column.

Installing Professional on my hard disk could not have been easier. From Workbench, I made a Superbase directory in the hard disk root directory. In this I ceated sub-directories, titled with the disk names. I opened a CLI window and issued the command 'copy df0: to dh0:Superbase/SBpro all' for each disk. I finally closed the CLI by issuing the command ENDCLI, closed all the windows, clicked on the Hard Disk Icon, clicked on Superbase directory, clicked on SBpro and a minute later I was using Superbase Professional!

It really was that easy! After playing around with the system for a few hours, it was time to read the manual (I did read part of it to install Superbase). Like many manuals, Superbase Professional's is nothing to write home about. Everything seems to be there, including errors and omissions. But I must admit that I do like the style. The typeface is clear to read and the screen dumps informative. The manual is pleasant if not spectacular.

The first thing to do is to change directories. Select [System] followed by [Directory] followed by [Change]. Type a slash '/' in the box and click on [OK]. This should display a list of directories: you will be able to click on different directories until you find the one you want. I worked my way through most of the tutorials methodically. This is an unexciting but necessary procedure with new software. You can always be sure that you will need to learn something new! The tutorials are worth the time and I recommend that you work through them completely at least once.

And so onto automating the start up sequence. Firstly, read the section titled 'Start Directory' in Chapter 7, Book 1. Select [Set] from the menu bar and move the pointer down to [Options]. Up pops a box titled System Options. Click on [More] to get the second screen up and click in the Start Directory path box. I typed dh0:Superbase/sbdata into this box, and clicked in the custom screen circle (make sure you have enough memory) and then on [OK]. Clicking on [OK] again saves the Start Directory path to disk.

Moving to the [Program] menu, I selected [Open] and clicked on Start. I altered the start program to look like the program in Chapter 3 of Book 2, saved it, quit Superbase, started up again and, apart from the usual dummy runs, saw a table view of one record twice. A little confusing, but quite logical. Set Table displays the first record to screen in table format. View displays the current record. Therefore one record appears on screen twice.

Well, I suppose that is enough to start with. Next time we go to print I will have set up a database with almost two thousand names and addresses on it and I should know a lot more about programming in Professional. If you've already bought Superbase Professional and you have some tips, then send them in. All articles willingly accepted. To answer the question posed earlier. Is Superbase Professional? We shall soon see!

Supertree

Rex Toomey sent me a copy of Ezitree some time ago, which I will review for the next issue of this magazine. He was kind enough to include a number of information files on disk and I am pleased to reproduce his standard inquiry letter. Ezitree is a genealogocal applications program written in Superbase. This topic is certainly of interest to many people and I would be pleased to hear from other genealogists on this subject. Anyway over to you Rex:

To use Ezitree, you need to have a copy of the database program Superbase [Ed: 64 or 128 version]. Using its BASIC-like programming language, I have written a number of programs under the title of Ezitree. These programs take family information entered into a predefined record format, and output it to standard genealogical charts. All the programs are linked via menus.

There are over 30 pages of instructions. Topics covered include: how to use the program, a full description of the various fields, and a tutorial/helpful hints section. The manual is included on the program disk and you should print it out before using Ezitree. You do this using a progam on the disk which I have written, or you can load the text into your favourite word processor and print out the more important parts you require. Please contact me if you have any problems using the system.

Ezitree will print the three main types of genealogical charts: ancestors (or birth brief), 4 or 5 generations; descendants, up to 20 generations; and family group, 3 generations; in either 80 or 130 column mode (ie compressed print - provided your printer supports it). Assuming your printer works with Superbase 64, and the Commodore MPS 802 is one of these, you will not have any trouble outputting any of the charts. You will need to put your printer into 'transaparent' or 'IBM mode' to obtain the benefits of your printer features, such as compressed print. The charts can also be displayed on screen in an abbreviated form.

Two indexes are available for output to either screen or printer: individual names in 'key' number order; or individual names in alphabetical order.

Up to five marriages and twenty children for each marriage can be recorded. Also, none of the programs are protected, so you can customise them if you wish. In addition, I consider Superbase 64 to be an excellent database with a relatively simple programming language which enables you to write your own output routines to create whatever indexes etc that you want. See how many other commercial programs let you do that! Finally, depending on the amount of information saved for each individual, you have flexibility in the number of records that you may want to store, up to the full capacity of the disk.

As a final comment, it must be said that like all family tree programs, Ezitree is still a compromise. The need to store as much detail of a family as possible on the database has to be tempered by the relatively small storage space and comparatively slow speed of the Commodore disk drive. The space constraints have also meant that I have not made provision to store information sources on Ezitree.

The price of Ezitree 64 is $25.00 plus $3.00 postage and handling [Ed: Australian dollars, I should think]. If you decide to place an order, please advise me of your type of printer.

Thank you very much Rex. A full review of the package next time and any comments from other genealogists would be welcome.

Superscript & Script

Tony Wright of 3 Algarth Rise, Stockton Lane, York Y03 0HD wrote to R S C Lawton of 31 Courtfield Gardens, London W13 0EY following the publication of Mr Lawton's letter in the Readers Write column and sent me a copy of his letter. This resulted in the following correspondence. I am grateful to both parties for sending me copies and I am pleased to reproduce a short precis of the letters. Please see Vol 10, No 2, Pg 229.

He writes as follows: Formatting commands must either be used on a separate line or at the beginning or end of a line or paragraph terminated by RETURN. Printing or printstyle commands can be included in the text. I am surprised you did not get a format error message on the command line at the top of the page. It is good practice to view your document on screen before printing to catch these formatting errors. I have no idea how you access italics on the MPS801 or Brother printers, but if you need to send a special character, then this can be included in the text. I would be grateful if you would explain why you want to use the pause facility.

Mr Lawton replies: According to the Script/Plus User Guide 'the command *ps will cause Script/Plus to interrupt printing and wait until C, V or P is pressed, allowing you to change print wheels, for example'. It does not mention moving onto the next line which is what happens. I want to be able to change printwheels in the middle of a line, print just two words in italics and then change back again. Viewing the document does indeed reveal what is going to happen. With regard to accessing italics on the MPS801, I have fitted a Printer IV to enable me to switch to any of four fonts. On the Brother daisywheel I have to change to an italics printwheel.

Mr Wright again: I am sorry, I did not appreciate that you had a daisywheel as well as a dot matrix. What you are trying to do is impossible because all formatting commands must be on a line of their own. Because of the way pause works you must change your printwheel between paragraphs or pages. You may be able to change to italics on your MPS801 if you can embed the codes in the text. If you have to use a secondary address then you will have to use a format command and we are back to the original problem.

Thank you very much, Gentlemen. A very interesting correspondence. There may well be a simple solution to the problem. Insert a pause command at the point where you want to change printwheels. On the next line insert a number of spaces so that the italics will start in the correct column, though at this point the printer will have printed a carriage return. Issue a reverse feed command to the printer! The printer will reverse the paper and carry on printing from the correct position. You should be careful though when changing printwheels. Script will not know what state the printer was in before you change them and so if you reset the printer, you may find that the printer settings have changed. Trial and error is the answer.

Superend

I mentioned last time that I would be compiling a new disk for inclusion in the ICPUG libraries. Where are your programs? I can't make up a disk if you don't send your programs in. It does not matter if they aren't perfect, everybody can learn something. Programs should be on the short side, though. This makes it easier for somebody to follow them and also for me to test. All programs will be reviewed and tested. Of course if you intend selling your program then please make this clear. I will still be happy to study the program and publish the review in this column. It is important though that you only send in programs which are not protected. The idea of the ICPUG library is to provide members with a useful service which can help them get the most out of their computer equipment. Protected Superbase programs would not help members as they could not be altered.

And so that brings us to the end of this Corner. This time we've been a little on the short side [phew! What's long? - head Ed.]. For those of you seeing this column for the first time, I usually try to include a few example Superbase programs and Superscript hints. As I mentioned at the beginning, time has just flown by. I really must get cracking and design a computerised calendar for the Amiga in Superbase Professional. Well, I will probably see some of you at the Commodore Show in June. I should be there on the Saturday.

GEOS 128 - APPLICATIONS NOTES

by Derek Tilford

These notes are not going to describe the various applications available for the GEOS system, others have already crossed this bridge before me. Having operated GEOS 64 and now upgraded to GEOS 128, I thought members might be interested in the compatability between the applications working with these two versions. This may help them to decide whether they should also convert to the bigger system.

First, I will describe the setup I work with, as it has some bearing on the results obtained. I use a CBM 128D which already has one built in 1571 Disk Drive. I also operate a second 1571 Disk drive which is normally configured as device 9. This is because I have discovered some programs that do not like the 128D as device 9, and will only operate correctly if it is device 8. Consequently, always configuring the drives to the same specification, I am not caught out by having the wrong disk in the wrong drive. Additionally, I have a 1750 RAM Expansion Unit, which in effect gives me 640K RAM to operate with. This definitely speeds up operations in both GEOS and CP/M environments.

The other peripherals used are a dual 40-col composite/80-col RGB colour monitor, a Star Gemini 10X Printer and, when working with GEOS, a CBM 1351 Mouse. A joystick is at hand for any applications where the mouse driver has not been installed, but this is obviously not the case with GEOS.

My main aim in converting from GEOS 64 to the 128 version, was so I could gain access to the full width 80-col screen. This is especially convenient when text editing, as one is not constantly having to window sideways to see the remainder of the current line. From the table below members will be able to see whether this was possible.

Of all the applications available for the C64, only two will not operate on the C128. According to the handbook, they use C64 ROM routines, and without new pointers to these routines being coded into the programs, they are not transportable to the C128.

The position with Geowrite is interesting. The version delivered with the 128 package is usable on the 80 column screen, and is much clearer than the 40 column version. However, if you subject the text to the V2.0 program, it can not be edited again using the 80 column screen. A conversion takes place to the text which allows it to be used only with V2.0, although it can be used by Geopublish. The best method I have found is to compose the text initially using the 128 V1.3 program. When it is complete and no further changes are required, I then transfer to the V2.0 program and alter fonts, justification etc, to achieve the required finished result.

One further point noted when operating the C128 version is that for some reason whenever it loads, the vertical hold on the screen requires adjustment. I suspect that it has something to do with being developed in a 60KHz environment, rather than the standard European 50KHz. Having said this though it has to be pointed out that the clock routines have been adjusted to the new frequency, unlike the C64 version where after 60 mins, the system clock had only run 50 mins.

Upgrade results

Application	Utility	C64	128-40 col	128-80 col
Desktop	Notepad	*	*	*
	Calculator	*	*	
	Diary/Calendar	*	*	
	Alarm Clock	*	*	
	Back-Up	Bas	Bas	Bas
	128 Configure		*	*
Writers W'shop	V1.3 (C64 Vers)	*	*	
	V1.3 (128 Vers)	*	*	*
	V2.0	*	*	
	Text Grabber V2.0	*	*	
GEOSpell		*	*	
Geofont		*	*	
Paintshop	C64/V1.2	*	*	
	128/V1.3		*	2 Colour only
	Graphics Grabber V1	*	*	
	Icon Editor V1.0	*	*	

Geofile	V1.1	*	No
Geodex	V1.0	*	*
Geocalc	V1.0	*	No
Geopublish	V1.0	*	
Geomerge	V1.0	*	*

(* = application will run in this mode. Bas = system reverts to BASIC)

From the table it can be seen that the main purpose of upgrading was not achieved. In the majority of applications, it is either impossible to use the full 80 column screen, or there are limitations, as in Geopaint. So the question has to be posed, was the cost of upgrading worth the expense?

Conclusion

What the upgrade has given me is the opportunity to use double-sided disks which provide twice the storage area, without flipping. This becomes important when using memory-hungry applications such as Geopublish. Similarly I can now use the RAM expansion unit (REU). This gives me even more memory to work with than that available on the double-sided disks. Additionally, once applications have been transferred to the REU, the speed of operation is greatly improved. In this context, it is only possible to address 2 disk drives or 1 Disk drive and the REU at any one time. By switching between the different drives and the REU using the 128 Configuration utility, as long as the system is not powered down, no files or applications held in the REU are lost.

So, whilst it is disappointing that the 80 column screen cannot be fully utilised, on balance the availability of the larger capacity disks and the ability to use the REU has made the upgrade worthwhile. However, if you only operate with a single 1571 disk drive, it would be questionable whether it is worth upgrading without also investing in one of the REUs which are now available.

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From the author of **Fontmaster II** comes **Fontmaster 128**, an enhanced version for the Commodore 128. This powerful word processor with its many different print styles (fonts), turns your dot matrix printer into a more effective tool. Term papers, newsletters, and foreign languages are just a few of its many applications.

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★ Font editor/creator included
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……………………………………

128 CANNON is the only 128 mode copier that works in all modes. 80 columns, utilities, copies between drives 1541/1570/1571/1581. Now only £24.95. Obtain CANON ***FREE*** when you buy the 1581 drive from us at £199.95 (p & p £3).

……………………………………

AMIGA

We are now able to offer very cheap memory expansions. These are internal boards for the A1000 (1½MB) and the A500 (2MB) ZERO WAIT STATE in FAST RAM. They are four-layered, buffered boards which mount internally to the 68000 MPU socket. Provides TOTAL Amiga RAM ranging from ½MB to 2½MB (2MB A1000). Selectable autoconfigure or non-autoconfigure. No soldering required and includes installation disk.

The ZERO K board with battery-backed Time/Calendar can start as low as £199.95. However, due to the volatile price of DRAM chips subject to change every day, please write for technical specification and a firm quote on price. These boards do not prevent you from expanding to a whopping 10MB total!!

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We now sell the best Hard Drive back-up program from Free Spirit with each drive. If you want further details and technical specifications of all the Amiga products, please drop us a line.

……………………………………

If we have wet your appetite with these snippets, we have more. Drop us a line. We can take Access or Visa. Who are we?

BYTES & PIECES, 37 Cecil Street, Lytham, Lancashire FY8 5NN

DIY COMPUTER DESK

by Peter Hauke

Anyone looking through computer magazines and supply catalogues may well suffer a fit of apoplexy after seeing the prices of custom computer desks. I certainly did. No way will I spend a couple of hundred pounds on a desk. I would far rather buy another piece of equipment or software first.

But I still had the problem of where to put all my equipment. Until recently had been using two desks, one for the computers and the other for the printers. This was unsatisfactory, so I went to B&Q to buy some bits and pieces for shelving (for all my computer books etc.) and low and behold I saw the very solution I had been searching for. Next to the fitted kitchens I noticed some extremely long worktops, about eleven feet long by two feet deep and one inch thick.

The worktops came in a variety of colours and I opted for the beige one, which matches my kit. The front of the worktops have a nice curved lip which looks nice as well. Getting the top home was neither easy nor comfortable (needless to say I don't have a Volvo) but home it came. The next problem was to find a place to set up my computer workbench. At first I intended to build a custom stand from two by two, but being a lazy fellow, I put one end of the worktop on a low book cupboard and the other end on a chest of drawers. Perfect!

All my computer equipment now fits on one surface. All the leads are hidden away in the gap between the book cupboard and wall (well away from the dog, at last!) and I still have the use of my desks for normal use. Eventually I may get round to building a custom stand, but I think I am more likely to buy a couple of units with deep enough drawers to store my disk boxes as well as all the other odds and ends that have accumulated over the years. I shall soon be constructing a small shelf about four or five inches high for the monitors, enabling me to slide the computers underneath when they are not beng used.

The cost? Believe it or not, the worktop only cost 25 pounds! Cheap at the price. If anybody feels guilty about paying so little for a custom built worktop then they can happily send me a cheque for the difference!

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JIM'S JOTTINGS

by Jim Kennedy

AGM comments

As you will no doubt read in other parts of this Newsletter, John Bickerstaff is your new Chairman. I am sure that everyone joins me in wishing him all the best with his new responsibilities. It would not have been practical for me to continue as Chairman since I am moving to 37 Salters Road, Ryde, on the Isle of Wight, and too many of the duties involve people and companies in and around London. However, I shall continue to serve on the Committee and assist with exhibition affairs as well as write for this august journal.

I also wish to take this opportunity to thank everyone who supported me during my chairmanship. It was an enjoyable, if somewhat hectic, period. In fact almost as hectic as the state my house is in whilst these words are being written. Half my furniture has been sold, most of the remaining chattels are either packed, disassembled and ready for packing or shifted about to make room for the aforementioned items.

I shall leave Lost Battles, as my house is named, for the last time around 8th June. I thought I mentioned in one of my past articles how I came to choose such a name for my abode but I couldn't find it in any of them so here it is. It doesn't have anything to with things military as most may suppose (understandably I guess in view of the the Lt. Col. appendage to my name). No, the name comes from some lines in the show and film, Cabaret. In that show the master of ceremonies in the KitKat nightclub used to introduce the 'girls' lined up on stage to the audience on cold winter evenings with the lines: 'Welcome Ladies and Gentlemen. The KitKat Club is proud to present the Cabaret Girls, each and every one a virgin.' (Much laughter from the audience.) 'What? You don't believe me? Well just ask her.' (He points to one sweet young girl in stockings and suspenders who giggles a lot and there is even more laughter.) 'Now outside it is very cold and wintery but inside it is very hot. So each night we have a battle with all of the girls to keep them from taking off all their clothing. And who knows, tonight we may loose the battle!'

We haven't named our new home yet. No points for guessing that my wife isn't keen on having Lost Battles as its name. And I guess since I've now settled down to married life and have an eight month old son I'd better go along with her on this issue. Anyway, I'll let everyone know what the new name finally becomes. Meantime, I'd be pleased to hear from members, and particularly those on the Isle of Wight, at my new address from 15th June onwards. Who knows, maybe we could get an IOW regional group started.

Comms confusion

During the ICPUG Southeast Group weekend-away at the Queens Armes Hotel in Charmouth, Dorset (yes, I know Dorset isn't exactly in the Southeast of England but your Amiga Librarian, Pete Miles, is a member of Southeast and we had the gathering at his hotel) I got Tom Cranstoun to show me more about some communications programs. Tom did a good job in explaining things. But the state-of-the-art in this field is appalling, the same operation on two different programs can have two different names, the same names in two different programs can do two different operations! The manuals or README files are usually as clear as mud, particularly to the first time user. I know that comms packages mess about with the serial ports of most computers which is a black art in its own right. But in spite of that I have come to the conclusion that most comms packages are written by people who don't want anyone else to actually get online and do anything, they just want to show the rest of the world 'Look what a smart boy I am. I'll bet you can't use this comms program like I can.'

Then I picked up the April issue of Amiga World. The Editor in his column called Zeitgeist (how I hate that word) said the same things as I was. He started off about RS-232 being a non-standard standard, moved on to modems being devices that phone companies invented to entice computer people to make more phone calls and to stay on-line for ever increasing periods of time and then mentioned baud rates, parity, stop-bits, handshaking, TTYs, protocols, capture buffers, ARCing and UNARCing, scripts, macros, pulses and tones, local nodes, Xon, Xoff, Kermit, Xmodem, Ymodem, Zmodem, CTS, CTR, duplex, echo, CR with LF, CR without LF, VT100, word length and so on and so forth. To conclude matters he explained about finding programs on a bulletin board he liked. He couldn't just download them because they wouldn't run on his Amiga, due to all the trailing zeros which need to be truncated. He could chop these off with public domain utility programs obtained from various on-line sources for free. But his Catch-22 situation was this: those free programs were in what is known as ARCed files, and he needed a copy of the UNARC program to make them work. How to obtain the UNARC program? Yes, you guessed it, download it from some bulletin board.

As if to emphasize the point about unfriendly comms programs made in their editorial column, the same issue of Amiga World had a comparative review of six communications packages for the Amiga. AmigaTerm from CBM was included. The review pointed out that nowhere in the AmigaTerm manual did it even tell you how to call or dial a number, log-on, up or download or do other

simple and useful things with your modem whilst using the package. The reviewer concluded that if you got this program free with an Amiga modem (apparently a CBM North American offer) you should probably not even open the package. It might well you off comms for life.

If I, and other semi-house-trained computer buffs (I was about to say polecats but a chap named Tebbit got there first), find these programs unfriendly, how do they appear to the novice punter? No points for concluding that the average man in the street just doesn't want to know about these things. The whole computer communications industry has to do a complete rethink before people will use these things in reasonable numbers. If word processors were as complex as comms programs we'd all be using typewriters.

Marketing misteakes!

The Word Perfect Corporation makes a very powerful word processor in Word Perfect. They also do a very good job in customer support with hotlines manned by knowledgeable people at the end of the phone. But there are some things I think their US head office marketing types might like to consider.

Whenever they fix a bug and update Word Perfect they ship thousands of new replacement disks around the world from their US headquarters. Shipping charges and delays along with customs clearances are only some of the problems created by this policy; they are also not able to insert the proper country specific codes in the master disks. Consequently, the customer support hotline at Sentinel Software, their UK distributors, receives dozens of calls per week asking how to enable the pound sign in all the various fonts in all the hundreds of printers the package supports. The hotliners dutifully tell each caller over the phone the rather long series of necessary commands. Similar drills are carried out all over the world by their other distributors.

Imagine the money and effort they could save by shipping one master copy to each country, having the technical support people in the regional offices enable the codes required for that particular country and then duplicating the disks for local sale. At first I thought that maybe their current policy was all a plot by their computer programmers and technical support personnel to provide extra jobs for the boys. But that line of thought doesn't hold water - according to the job adverts in the papers there are is a shortage of computer types to fill the existing job vacancies, so why the incentive to create an even greater shortage? Must be something else I don't understand in all this. Or maybe it's just their marketing types can't see beyond their front door.

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TECHNICAL SECTION - AN INTRODUCTION

My name is Bavin Clarke, and I run the Technical Section of ICPUG. I have used CBM machines from the original PET 2001-8N with built-in cassette deck to the CBM 8296, plus the C64 and C128. I do not use the Amiga or PC range but this doesn't mean I don't know a little about even these machines.

So enough about me, now some detail about the Technical Section. The Technical Section is undergoing a transformation at present, so I will give details that are correct at the time of writting this article.

The Technical Section exists to answer members queries and advise them on hardware, software and any other problems they may have.

We also offer a service on Compunet (just go to 'ICPUGT'). If you can not access this, then mailbox both 'ICPUG' and 'BGC1' with your CNET user identity and your ICPUG membership number and we will correct the CUG Entries. Full details of our CNET service can be found on the network. Please read the manual (on-line) first. This is for your own good.

Now a little about the transformation. Elsewhere in this issue you will find details of the new questionaire. Please complete it and return it to me at the address indicated. It does not matter how little you can offer.

After I have received the returned questionaires they will be analysed and keyed into the help database. From this database I will be selecting people to act as focal points for a particular type of machine. This could be one machine or a whole series. The selection will be based on willingness as indicated on the form and certain other factors. When all this work has been done I will be publishing a list Co-ordinators in the Newsletter. Along with this list will be the new procedure for submitting queries.

For the present ALL queries in letter form will require an SAE (NB: stamps not money). If we do not receive SAEs then your query is likely to be filed and answered in the Newsletter or not answered at all. If phoning in a query then be prepared for reversed charges calls for the answer.

Finally, please bear in mind that ALL members of the Technical Section are volunteers and do ICPUG work in their own time, and at their own expense.

So please be patient - not all answers are simple and even the simple queries seem to get more complexed the more they are looked into.

Please also note that ICPUG or any member of the Technical Section can not accept liability for any information given. Do not ask us for circuit diagrams, ROM disassemblies or other copywrited information as we will refuse to supply it. It is not the policy of ICPUG to condone piracy in any shape or form.

ICPUG National Help Register

Members may or may not be aware that Mike Todd has to relinguish his role as Technical Co-ordinator and I took over as Technical Co-ordinator. "What does that mean?" I hear you ask. Well, basically it means I have to take care of the Technical Organisation of the Group, and obtain information from manufacturers and suppliers on behalf of the Group. I can only successfully carry out this job with your help.

In order to help, I am asking all those who wish to assist to complete the form enclosed in this issue. Yes, even those who completed Mike's form please. After completion, return it to me as soon as possible at ICPUG. Help Register, 'Uplands', Pwll Road, Burry Port, Dyfed, SA16 0TD.

I will assess the responses and nominate a series of Sub Co-ordinators to look after a specific area of the Organisation. These Co-ordinators will have their addresses published in the Newsletter for the Members with problems to contact. Each Co-ordinator will have a small army of volunteers under his wing, to help answer queries. Thus when a Co-ordinator receives a query he can either answer it himself or pass it down the line, or up for that matter.

When nominating Co-ordinators the criteria I will be looking for are, a) Compunet or Prestel/Micronet Subscriber (if possible); b) Willingness; and c) A reasonable level of knowledge.

All members please note that after the reorganization, which will be announced in the Newsletter, each query MUST be accompanied by 2 stamps, 2 envelopes and 1 address label.

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WRITING FOR THE NEWSLETTER

The content of the Newsletter relies heavily on you, the reader. Almost all the articles in this issue have been written by members such as yourselves. We have a regular group of (unpaid) contributors who we count on to produce a reliable flow of quality material. But on the whole they just write about subjects that interest them: Forth, COMAL, comms, Amiga, disk drives, and so on. As there are very few computer users who can understand and write with authority on every aspect of all Commodore computers, except maybe Jim Butterfield, we always need material from enthusiasts everywhere. If your particular field is computers in astronomy, or the third chip from the left in the second row of the C128 memory, the chances are others will like to read about it.

Do you know what you're writing?

Inexperienced authors may find the following simple guidelines useful:

- Collate and organise your ideas into a logical sequence. I often produce a rough list of topics on the word processor, expand these into sections, and further expand into sentences. I use the wp as an idea processor, so if anything out of context comes into my head, I can append it into the correct area. It is a much more logical approach to writing.

- Keep the language simple and the sentences short. Try not to create hugely complex stuctures, with vast multiple comma separation. Few people today can claim to fully grasp the intricacies of grammar. If you have trouble writing it, others won't be able to read it. Make each sentence relate to one point or argument.

- Try to avoid waffle and concentrate on facts. By all means send in amusing, chatty articles or sections, but when writing technical material, keep it simple. I often use my past Newsletters as reference books. If you're not sure in what style to write, read a broad spectrum of articles in the Newsletters (Mike Todd, Jim Kennedy, Betty Clay).

Be your own Editor

When penning articles one often, at the time of writing, subconsciously "skips over" misspellings, poor grammar, illogical sentence structure and repeated words. I do it myself. One of the jobs of the Editor is to look at this material from a fresh angle, pick up these errors and correct them, though at the same time maintaining the spirit of the passage. Contributors often groan at the obvious mistakes they have made when I point them out. The larger articles sometimes take more than an hour to edit, and some articles arrive so close to the deadline we have precious little time to proof read, let alone edit, them. It would save us a lot of time if you tried the following editorial methods:

- Re-read your work the following day, and read it as though someone else has written it.

- Read it aloud. This may result in household alienation but will, again, provide a fresh angle.

- Get someone else to check it (preferably one who understands computers) and read it to you. If they understand it, others should.

When to write

All the time! We need more and more articles, on every topic of Commodore computers. We include almost all the material we get in the Newsletter, and if we don't use it straight away, it will probably be held over till next time. It helps us, though, if articles are submitted early, giving us time to edit it, lay it out, and proofread it. A useful timing guide would be to make sure articles reach us about three weeks after the current Newsletter arrives. If this Newsletter reaches your doorstep on, say, the 10th June, send your masterpiece not later than the 31st.

Which Editor?

Send submissions on 5.25" (8250, 8050, 4040, 1001, 2040, 1541/40/70/71) format to the Editor, Bill Bremner.

Send material on 3.5" (Amiga) format to Iain Graves.

Send letters and For Sale/Wanted ads to Peter Hauke.

Word Processors

Vizawrite Classic can read in files produced on the majority of current word processors. At the moment, the only one we can't handle is Wordpro. If you aren't sure, and to help us, save your article to disk along with, if possible, the text saved as a "Print To Disk" file (this option is available in Superscript, amongst others). Do not, however, have right justification on. This will add unwanted spaces which we have to strip out.

File layout

This is probably the most important section you will read, so please read it completely, twice if possible, take note, remember, consider, digest and above all, follow. Of all the ways that you can improve your article, and save us a lot of time, this must be the easiest and quickest to carry out. Simply put, please don't do any form of layout. No centering, justification, tabbing, indenting, underlining, emboldening, subscripting or layout formats of any description, please. No imbedded commands. No format lines. This is our job.

However you think your article is going to look, it will get changed. So far, there has not been one article to escape editorial control, of one form or another. Unless you use VizaWrite Classic, complete with the same printer profile that we use, and conform to the same spacing, lines per page and so on, text will be altered. Even then, the chances are some editing will be carried out. Just send us straight text, in the same general format we use in the Newsletter. If you want the Editors to carry out some special layout work on your article, include printout complete with suitable notes. We don't work off the printout, we work off the disk. The simpler the text layout, the less time we have to spend removing unnecessary formatting, and the more time we can spend making your pride and joy look and read like the best.

Simple layout in one easy lesson

TITLE IN CAPITALS (no full stop)

<

by Joe Bloggs (small b in 'by', no full stops)

<

<

Sub-headings in lower case (no full stop, first letter **S** in capitals)

Text flush to left-hand side for first line of first paragraph, on the line below the sub-heading.

   Text three spaces in for first line of following paragraph.

Text flush to the left-hand side for first line of isolated paragraph or section.

One space after commas, full stops, colons.

Hard copy

Printouts are extremely useful to the Editorial team, so if you have a printer, please use it. It means that we can check important layout-oriented material such as tables and listings, and you can highlight areas to note, or add last minute notes or changes. Please provide at least a 1" margin on the left (it has to go into a file), and, if possible, provide a blank line between each line of text (for corrections etc).

Disk notes

Keep filenames short and simple. For example use "amiga" for an Amiga article, or "review", "program" and so on. Don't use capital, graphic or special characters, use alphanumeric (a-z and 0-9 only). If possible, provide a second copy.

To conclude

Presented here is a short list of items to check before you send in your (much appreciated) masterpiece:

- Re-read (for the nth time).
- Check for any (unwanted) format symbols etc.
- Replace all occurrences of "(quotes) with ''(two apostrophes).
- If you have to use "#" instead "£" on your printer, change it back to "£" (I hear the exchange rate is pretty good at the moment).
- Do us a printout, with a generous margin, and lots of room for red ink.
- Add any last minute notes.
- Pop it in a mailer (with a stamp and address label if you want it back).
- Ensure it is addressed to the pertinent Editor.
- Send it (important).
- Enjoy life (most important).

* * *

KNITTING AND COMPUTERS

by Charles Hooker

My wife has had knitting machines of one sort or another since before I met her, producing jersies, cardigans, dresses and skirts for friends and family. However, her principal interest is more in the design than the finished garment. Last year she spent months trying without success to convert a design from a picture to a usable pattern. Even a gadget bought at an exhibition did not deliver the goods. At that time her machine lacked a ribbing attachment and I decided to purchase one for a present. However, a friend showed me an electronic machine. Originally, I was not going to consult my wife, but buy it as a surprise. Sense prevailed: what I had in mind was totally unsuitable for her.

My wife showed me a machine she thought she would like, so we went to see this "all-singing, all-dancing wonder" and she came away convinced that it would be suitable, and she would be happy. This knitting machine has a computer which will convert light passing through a translucent sheet into a pattern which can be translated into a knitted picture. A host of different designs come with the machine, which is fine, but what about designing your own? Two friends, both ICPUG members, and I wanted jersies with computers on them.

You are doubtless wondering what all this has to do with Commodore. To put this into context, I can produce a printout of a design from my 128, using one of the many drawing programs such as Blazing Paddles, Doodle or some of the clip art designs in Print Shop or News Room. This is then inserted into the knitting machine which will read the design. There are various problems that have to be overcome. The most important is the relationship between light and dark areas. Lines must be at least 1mm thick with a minimum of 1mm space inbetween. You must ensure that the printout paper is sufficiently translucent, allowing the light to reach the optical scanner. The image is then passed to the computer proper which converts the light into a program for the knitting system to operate the needles. Your ribbon must be dense black otherwise it may confuse the scanner, producing unexpected results.

In case any of you think I know something about knitting, let me hasten to assure you that I am probably as useless as most males in this field. I only have to look at a cone of wool and it turns into a tangled webb. So you see, through my wife's hobby, I have found an extra dimension to mine. Maybe you will see Colin, Michael, and myself sporting our computer-designed jersies at one of the computer shows. You never know.

[Gives a new meaning to designer clothes - Ed.]

REVIEW - LAN EXTERNAL DRIVE

by John Bickerstaff

Some weeks ago I was fortunate enough to have pass through my hands a LAN 3.5" external drive for the Amiga. I say pass through my hands because it was 'held' for only a few hours before being sold to an eager ICPUG member. In fact there were two drives provided on a sale or return basis to the recent computer convention at Charmouth (details of which are produced elsewhere in this issue) and both units were purchased on the first day of the convention.

The unit is slim and compact, light in colour, four inches wide and just over an inch high, with a connecting cable fitted to the rear. A socket is provided which can be used to connect another similar drive, as long as the Amiga in use has sufficient power. Please remember that the power for this drive is taken from the Amiga. You should not overload the computer. It can cause failure of your power pack and possible damage to the machine itself.

The drive is based on the famous NEC drive mechanism which is used in external drives for the Amiga and other computers. The unit runs quietly and the read/ write condition is confirmed by a green indicator located on the front, just below the disk slot. This is similar to the drive indicator light for the internal drive on the A500 but different to the A2000 internal drive indicators which are red. The Lan drive can be used with any Amiga, A1000, 500 or 2000, so it is universal in that respect. However, should you be using an A2000 fitted with a Bridge Board and hope to connect a 3.5" external drive to this board then then LAN drive will not - in common with other non-Commodore drives - be suitable. A Commodore A1010 external drive is the only unit, as far as I am aware, that will provide the ability to read and write to MSDOS 720K disks.

No continuous tests were carried out, but in general use and in conjunction with any other type of drive - internal or external - the LAN unit was at least equal in performance. In fact with both Lan drives attached to an A2000 (which had two internal drives fitted) it was possible to initialise four disks at the same time. Well, it took time to start each one off but for most of the time they were all running together - much slower of course than just one, but it is possible.

The price is just £102.35 (incl VAT), a very reasonable buy for Amiga owners. LAN are advertising in this issue so should you wish to purchase one of these quiet and efficient drives please contact them - not forgetting to quote your membership number.

KERNAL CALLS - 1

by Ian Cassidy

Some of the most useful aids to any budding programmer are the Kernal routines stored in ROM. Fortunately the one ray of light in the Commodore incompatability stakes is that although the actual addresses of these routines might change with the launching of a new computer, the vectors that allow us to access them remain the same. So this article is as relevant to VIC20 computer as it is to the 128. To start off we are going to look at two routines that are useful when addressing the screen.

The first of these routines will output the contents of the accumulator to the current output channel. When CHROUT is used to print characters on the screen the cursor is automatically moved to the next screen position. The default channel is the screen.

CHROUT	Output byte to the output channel
CALL ADDRESS	$FFD2 (65490)
COMMUNICATING REGISTERS	A
REGISTERS AFFECTED	A

The next routine can be used either to position the cursor on the screen or return the current cursor position into the communicating registers. To call this routine when setting the cursor position the carry flag must be cleared. The (X) register contains the row number and the (Y) register the column number. Entry with the carry flag set will return the cursor position.

PLOT	Set/get cursor position
CALL ADDRESS	$FFF0 (65120)
COMMUNICATING REGISTERS	X,Y
REGISTERS AFFECTED	X,Y

In the example below the screen is first cleared using the CHROUT routine,and the cursor is positioned at row 10, column 17 using the Plot routine. The CHROUT routine is called once more to print the title "ICPUG".

```
$0C00  PHA                 ;Save Accumulator on stack
$0C01  LDA #$93            ;Pass ASCII code for chr$(147)
$0C03  JSR $FFD2           ;Call CHROUT
$0C06  LDX #$09            ;Set target row number
$0C08  LDY #$10            ;Set target column number
$0C0A  CLC                 ;Clear carry flag to plot cursor
$0C0B  JSR $FFF0           ;Call Plot
$0C0E  LDY #$00            ;Set counter to zero
$0C10  LDA $0C1D,Y         ;Get character from table
$0C13  JSR $FFD2           ;Call CHROUT
$0C16  INY                 ;Increment counter
$0C17  CMP #$0D            ;Check for a carriage return
$0C19  BNE $0C10           ;If not then back for next character
$0C1B  PLA                 ;Retrieve accumulator from stack
$0C1C  RTS                 ;Return from subroutine
$0C1D  BYTES $49,$43,$50,$55,$47,$0D      ;Text: ICPUG <CR>
```

The golden rule to remember when calling any kernal routine is to check what registers will be affected,otherwise you may spend hours trying to find out why the flow of your own program has been corrupted. I have demonstrated this in the above example by saving the accumulator on the stack,because the CHROUT routine will alter it. This concludes the first of these articles on the kernal so until next time do try experimenting a little on your own.

***

CONSIDER

Computers are complex beasts, usually designed in a relatively short period of time by teams of knowledgable eccentrics who pass their creations (rarely upwardly comaptible let alone compatible with anything else) on to less enlightened but equally enthusiastic punters. We, the public, then spend a far longer period of time learning how to use these machines and thinking of something to use them for. We discover and point out their mistakes, but on the whole correct them ourselves. Software houses produce programs they think we should use, and we try to use them the way we want. Again, we discover and point out their mistakes, but this time they are far too complex and integral to correct. By the time we reach the point where both machine and software are understood and in complete harmony, the manufacturers create a new gizmo, and round the wheel we go again. We never learn, and they continue to reap the benefits. Who wins? Not us. It is a shame that new technology requires us to re-learn the wheel each time it is re-invented.

REVIEW - MICROTEXT TELETEXT ADAPTOR

by David Knowles

The Microtext Teletext Adaptor is the sort of 'add-on' which makes computer ownership even more attractive. It is very useful, well made, easy to operate and above all works efficiently. Those of us who have to put up with incessant repeats and assorted mediocre transmissions on our simple idiot boxes should be grateful to Messrs Microtext for making this little box of tricks available to us. We can now access masses of computer-based information without incurring ongoing time and telephone charges and membership fees.

Okay, so maybe you already own an 'all-singing, all dancing' television with flashing lights, remote control and access to 'Ceefax' and 'Oracle' facilities. But, can you save the pages of these Teletext services to disk for later review, dump to printer for ongoing perusal or access the information from within your own computer programs? If not, then this accessory is for you.

The Microtext Adaptor comes in the form of an attractive black box which simply slots into the User Port. It is further connected to your existing video recorder or, if you are not the proud owner of a VCR, the adaptor may be plugged into an optional tuner also thoughtfully produced by Microtext.

After a quick and simple set-up, the software is loaded and the system is ready to go. The instructions supplied are clear and concise so there is little chance of confusion or error. If you are using a VCR, the channel selection is handled in the usual manner from your machine. If you use the Microtext tuner, the channels are selected from the computer keyboard. The software takes care of automatic frequency selection so the tuner can be used in a dozen or so different countries in addition to our own.

All Teletext signals require good television reception. Even some of the purpose-built TV sets suffer from character drop out in poor reception areas. Generally speaking, the tuners in video recorders are more sensitive than those in TV sets. So, there is a good chance that Teletext displays will be marginally better after passing through a VCR. The compact tuner supplied by Microtext has its own power supply and appears to be of high quality. When connected to a simple indoor aerial, the reception was 100% trouble free. However, it must be stressed that some other areas might suffer if the signal strength is poor.

How are the information pages accessed? Quite simply by keying in a three digit page number. The Ceefax and Oracle systems are not the fastest in the world in terms of search and display, but, since there are no on-line charges, there's no financial disadvantage in waiting a few seconds for a page to appear. Some pages extend to three or four screens of data. These flip forward automatically after a predetermined delay. By using the Microtext Adaptor along with the matching tuner, all of the channels may be selected from the computer keyboard, or even from within your own programs!

This is where the system really begins to score over the regular TV-based hardware. By using the software supplied, in conjunction with your own programs, it is possible to control the Teletext systems to respond in whatever manner you require. By using the well documented PEEKs, POKEs and SYS calls you can select a channel, call up a page, copy it to RAM, print it, save or load it to/from disk or tape and much more. Such programming need not be lengthy or difficult. Some clear examples are included in the instruction booklet.

In addition to selecting pages by simply typing their numbers, several other facilities become available by pressing the appropriate keys. Next page, back a page, reveal (for puzzle solutions), hold, print, save, load etc. This is surely how such a system is meant to operate, as opposed to simply viewing the data on a screen.

It seems likely that, in the future, 'Telesoftware' may be made available to download from this system to the C64. Updated software will then be made available from Microtext to facilitate such downloading of programs. Yet another bonus worth looking forward to!

On the surface, the Microtext Teletext Adaptor, for the Commodore 64, might appear a little expensive at £69.95 or £114.80 complete with the tuner. However, if you compare that with the price of a Teletext TV, without the saving, printing and programming facilities, this smart little unit begins to look worthwhile. Remember, there are no additional charges for accessing the extensive data bases after the initial purchase has been taken care of. I think it's a terrific accessory which should be purchased by any C64 or C128 owner whose interests are in the field of information retreaval at both business and domestic level. For further details, or to place orders, contact 'Microtext', 7 Birdlip Close, Horndean, Hampshire, PO8 9PW. Tel: 0705 595694.

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HARDWARE BUGS?

by Pete Miles

American bulletin boards sometimes throw up an interesting titbit that isn't particularly technical in itself but may of interest to someone somewhere. The following reports are just that, so I have included them here in the hope that someone who knows more than just how to switch on their pride and joy, (me), can help with an explanation. Now I make no comments as to the accuracy of what follows, only that it has been copied correctly, so if it doesn't make sense don't call me.

It is assumed that you have a PAL Amiga 1000; I don't have a 500 or a 2000 so I can't say if this applies. Open a screen with at least 640+32 pixels across. You need 'Morerows' or 'Scnsizer' to do that, with a depth of 4 bitplanes and a height of more than 213 non-interlaced lines. Now everything below the 213th line on your screen won't be visible, but your screen is really as large as you wanted. You just don't see it. When you drag the title bar down below the 213 border, you suddenly see it. Remove any of the above requirements and the bug won't show up.

Another bug, which may be associated with the first, is the secret of the double arrow pointer. I am typing this using Vizawrite (magic) and the problem shows up even now. Put the pointer somewhere below the 213th line and move the it backwards and forwards across the screen fairly quickly. You will see the double pointer.

The next phase is to load the Workbench, if its not up already. Select any icon and get info on it. Now click outside the info window, but inside the workbench window, and the "zzzz" cloud will appear. BUT. Do all that below the 213th line and the original pointer becomes frozen to the screen and the "zzzz" cloud will reappear and be able to move.

Anyone got any idea whats going on?

***

AMIGA PROGRAMMING

I'm sorry to say that due to moving, I have not been able to produce the second gripping installment for you. Next Issue I promise.

It does appear that the gremlins crept into Bill's laser last issue and converted all the curly braces into square brackets. In this state, the program will not compile. Solution: replace all the brackets with braces.

Tim Arnot

BITS AND PIECES

by Brian Grainger

Since I am not writing a lot of articles this time I am including various bits of news in this article.

1) Further to my report on the Debbie Desire network service in the last Network News it would seem that Telemap have introduced a service on a premium rate telephone number. Hotel California on 0898-100890 seems to have a competition area, a private party area and a problem page. If you have 25p a minute off peak to spare you may like to try it.

2) The mailwrap facilities for Prestel mailbox that I mentioned have been implemented. Prestel have also announced local call access to 100% of the country.

3) Just as the SCA virus was sorted out we have a new one - the Byte Bandit. This one does not attack write-protected disks. It is located on the boot block again and virus killers already exist. I do not have one though. The effect is to completely black out the Amiga screen and you need to turn the Amiga off and on. Andy Roddis wrote to tell me that he caught this new virus after buying an SCA virus protection disk through CCI for £2. Caveat Emptor.

4) Had a couple of letters in reply to my request for the definition of DIV and MOD. John Kelly sent me details of DIV and MOD in various computer languages and true to form the results varied from language to language. Bill Podmore sent me the best definition from a manual on Modula 2 and it does say that it is the mathematical definition:

```
x DIV y = q  q<=x/y
x MOD y = r,   0<=r<y for y>0; y<r<=0 for y<0
```

Assuming that to be true means that the Commodore COMAL is always wrong and the PC version is sometimes wrong! This is because with the above definition -7 DIV 4 should be -2 and -7 MOD 4 should be 1.

5) Readers of Commodore computer mags will have seen the COMAL cartridge for the 64 advertised at £24.99 from Positronix Ltd., 8 Faraday Court, Park Farm, Wellingborough, Northants. NN8 3XY, tel 0933-677732.

6) COMAL for the PC is also available in this country now from Research Machines. Normal users should telephone for price and availability but they should be aware that it will not be much cheaper than I have quoted in the past. Education Establishments get reduced prices. Ex-VAT prices are £125 for a 'classroom' licence plus £35 for each PC. Thus a classroom with 10 machines would pay £475 and receive one set of manuals. Additional manual sets cost £35. These prices are for the standard COMAL. Ring RM for prices of the compiler option. RM are at Mill Street, Oxford. OX2 0BW. Tel. 0865 249866. Contact is Eugene Sweeney. As expected sales to Scotland have already been in excess of 150 licences and letters of praise for COMAL are being received.

7) Readers might be interested in knowing how I created my articles for this Newsletter. The spreadsheet example in my other article was created using Analyse on the Amiga and printed to a file on an Amiga disk. I then used the 64 Emulator and serial cable to load Superscript from my 1541 into the Amiga. I read the spreadsheet from the Amiga disk and typed the rest of the article with Superscript. The result was saved to the 1541 in the format the Editor likes. I found Superscript a bit slow on the Amiga so this article has been created with Scribble2 and saved to an Amiga disk. I then used the 64 Emulator again to load Superscript from the 1541 and this file from the Amiga disk. Unfortunately, because Scribble dumps true ASCII, and Superscript reads PET-ASCII, all capital letters are put in lower case so I had an editing job with Superscript before dumping the result to the 1541 disk. Therefore I have created everything on the Amiga! If anybody can tell me how I can either dump PETASCII from Scribble or get Superscript to read true ASCII I would very much appreciate it so that I can save the editing task. [I suppose we could produce the Newsletter on an Amiga for you Brian - enigmatic Ed.]

8) Following the alternative to WYSIWYG mentioned last time here are some more alternatives culled from Micronet:

IKIWISI .... I know it when I see it.
WYGINWYS ... What you get is now what you see
WYSIAWYG ... What you see is almost what you get
WDIGWIS .... Why didn't I get what I saw?
WYSIWYL .... What you saw is what you lost!!!

The last one has happened to me a number of times. Usually when having just finished typing a long article during a thunderstorm and the power goes! My temper usually gets lost very rapidly afterwards!

SIG REPORT - DISABLED USERS

by Ian Jones

As many of you may know if you have read previous ICPUG mags, there is a Special Interest Group within ICPUG concerned with the needs of Disabled Users. I am a new member to the group but due to being disabled (and being a little bolshie), I have become Dave Bate's (Disabled Liaison Officer) assistant.

At present we are in the process of contacting Disabled Groups and manufacturers to find out if there are any input and communications devices already available (neither of us know of any) for Commodore machines. We're also trying to convince manufacturers who make such devices for other machines to convert them for ours (or at least give us one and let us adapt it).

Once this stage is complete (or at when we get some results) I feel it is essential that we have some form of library to support these devices. Therefore, I am looking for some members who feel they can write software to aid their disabled peers, and some librarians.

However, both Dave and I agree that we do not want any of the usual patronising, bug-ridden, garbage that many people have written for other machines. We want software that is functional or entertaining (ie a single-switch, possum-type wordprocessor, or Space Invaders game).

A question to be asked when writing software for the Disabled is: 'Would you use it?' If the answer is no because its childish, boring or useless, then you can guarantee that the Disabled User will be just as critical.

An Educational section in the library may be useful (for both children and adults). Pitch it at mainstream age groups, so the people selecting the software can choose those programs suited to the mental age of their group.

The key to good disabled-designed software is standardisation. If the program is to use an external device then all similar devices should be configured to the same ports, so hardware/software incompatability problems do not arise. Programs should be structured so that individuals can tailor them to their own specific needs. No two disabled people have identical needs.

At present, Dave and I can support the following machines between us: PET (3000/4000/8000), P500, VIC20, C64 and C128. So we can cater for the whole range of machines, it is essential that we get support from members who have other Commodore machines. Failing this, if anyone has a machine that is not mentioned above, and is gathering dust, then both Dave and I will gratefully accept any donations of this kind (I think Dave's looking for an AMIGA!)

I can be contacted at 21 Dene Street, Pallion, SUNDERLAND, Tyne and Wear SR4 6JB, tel: (091) 5652833 between 6-9pm and weekends

DIGITISING WITH DIGI-VIEW

by Ralph Reed

I have been asked on several occasions to reveal my 'secrets' of digitising. This file should answer all those requests at once. It will give you a good point to start with your digitiser. As a baseline, I use the NewTek Digi-View digitiser, with the Panasonic WV-1410 monochrome camera. A color camera can be used, but it only has a third of the resolution of the monochrome camera. Use a black and white device for best results. I also spent the extra money to buy the camera lens with a variable aperature. This gives better control over lighting, contrast and focus.

The first and most important 'secret' is lighting. Ideally you want the light to be spread evenly across the entire area you are trying to digitise. Get as close as is reasonably possible. I use two lights spaced about three feet apart and at a 45 degree angle to the center. You need a light with a fairly wide parabolic reflector. Try for wide beam, not a spot beam. The position of the light should be easily adjustable. The lights I use cost $9.95 each from Wal-Mart, soft white bulbs for a more diffused light. I can't stress how important the lighting is to good results. You can NOT get good results without good lighting.

The next thing to worry about is the camera setup. You need some method of holding the camera steady and perpendicular to the picture you are trying to digitise. A good camera stand of some sort is ideal. It is important that the camera does not move while you are working. To get the signal from the camera to the digitiser. Use good, low noise cables. Do not split the signal for the monitor. I use an old amber monochrome monitor for setting up the picture. Its nice and sharp and makes it easy to focus the image. A small switchbox allows me to send all of the signal to either the digitiser or the monitor.

The third element is the picture. Some pictures just do not digitise well. I have about 50 meg of pictures at home. All of them are good, but only a few of them are great. So pick your pictures, if you can. Look for pictures that are bright, with good contrast. Very fine detail doesn't usually digitise well, especially in HAM mode. In HAM mode avoid fine detail horizontally. Once you have the picture you must decide what mode to use for digitising. For maximum resolution use the hires black and white mode. The color mode in hires is very difficult to work with because the color has to be just right to get any kind of reasonable result. It works best if the picture is mostly one or two shades of color. The more color you try to use the worse the picture gets. For color use HAM mode. There are two HAM modes, 320x200 and 320x400. I usually use the 320x400 to get the maximum resolution. The 320x200 mode is fine if you are short on memory or don't need the resolution.

So finally we are ready to digitise a picture. We have our picture, the camera setup, and the lighting nice and even. We need to check the intensity of the light too. You can have too little or too much light. If you have a variable aperture lens you can adjust the lens to control the amount of light, otherwise you need to move the lights closer or farther away. If the picture looks washed out and muddy you probably need more light. Be careful though, too much light can cause damage to the camera lens. If you start to see after-images in the camera when you move the picture you have too much light. DON'T leave the camera staring at one spot for long periods of time, even if the camera is off. The vidicon tube can be damaged even if turned off. Close down the aperture of the lens, cover it, or turn off the lights.

Take a little time at this point to set up your picture properly. Frame the picture in the camera. Use the Digi-View camera options to adjust the width or positioning. Don't leave the edge of the picture in the camera view. A mass of solid color will throw off the color calculations and a large, bright white area will shift the overall contrast range of the picture and make it dull and muddy. Make the main subject as large as possible. In HAM mode try to make the finest detail run from top to bottom rather than side to side. A little effort here will pay off in the long run. This is where you can use your artistic ability to crop and frame the picture.

The Digi-View software has many options, but with experience you will have one baseline setup for most pictures. Each picture will usually be very close to the baseline setup. With my setup my HAM baseline is:

```
Bri:4  Con:4  Sat:0  Red:8  Grn:0  Blue:-8  Sharp:4
```

This frequently give me a perfect picture the first time. I use the 4096+ option and 20 second scans. This would probably be a good place to start, but will vary with your setup. Take a picture and experiment. Once you have a good image record the setup. There is no real substitute for practice, but practice with a purpose and learn from what the results.

Let's look at what some of the sliders do for your picture. The Bri controls the overall exposure, lighter or darker. The Con on the other hand controls the range of lightest to darkest. If you increase the CONtrast you make the dark areas darker and the light areas lighter. This tends to make the picture look sharper, but you loose detail in the shadows and may wash out the bright areas. To bring out more detail in shadows or washed-out areas lower the contrast. The SATuration slider is usually kept on 0. This makes all of the colors brighter. On some pictures it will brighten up the colors and add sparkle to the picture, but usually it just adds little hot spots of color and makes the picture look garish.

The Red, Green and Blue sliders control the color. This is the tricky part if you inexperienced at working with color. The Red slider controls red and cyan (a blue-green color). More Red increases red and reduces cyan in the picture. The Green slider controls green and magenta (a redish purple color). The Blue slider controls blue and yellow. Reducing blue increases yellow. The colors are additive. Increasing one is the same as reducing the other two. You can always balance the RGB so that one of them is 0. To adjust the color you need to look at the picture and try to decide what color you have an excess of. If it appears too yellow, increase the blue. Try to deliberately overbalance the image with one color so you can see what that color looks like and recognize it. Like I said, this is the tricky part.

The SHARPNESS slider controls the amount of dither in the picture. Increasing it will make the picture appear sharper (logical), but it will tend to increase the number of those little hot spots. I like about 3 or 4 for HAM pictures and 4 or 5 for hires pictures. On the other hand, lowering the sharpness will give you a soft focus affect.

Once you have a good image, save it to disk. At this point you are done in most cases. If you have something special you might want to go into Digi-Paint or Photon Paint and edit it a little. Get rid of any anoying hot spots, trim the border, sharpen up a little detail. The touchup work can make the difference between a good picture and a great picture.

That's basically it. This should get you started, but you still need practice. If you found this useful let me know. I'll be looking for your work.

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REVIEW - VIZAWRITE AMIGA

by Pete Miles

Many 64 and 128 owners will have seen and used Viza Software's previous products for the 64 and 128 machines and those who have upgraded to the Amiga will be pleased to see Vizawrite now taking a hold on the market.

The user display and interface is the now well-established icons or Intuition system of the Amiga. This allows nearly all commands to be accessed from the drop-down menus, and in some cases the keyboard. For myself I haven't really made up my mind whether I prefer menu commands or keyboard commands as featured in most older wordprocessors. Keyboard commands have to be remembered but this usually comes with a bit of practice. On the whole I prefer a combination of the two systems. Each to their own I suppose.

Printers and Printing

It is generally agreed that the best format for a wordprocessor is WYSIWYG, the infamous acronym for What-You-See-Is-What-You-Get. What you see on the screen should, in theory, be the same as what you get on the paper printout. This is not always strictly true but Vizasoft have got round this problem by adopting bit-mapping for the text handling. This is slower than full-screen handling as has used in the past, but does provides a far more accurate placement of text and graphics in a window and on paper. The one snag that crops up using bit-mapping is when you want to use your printer's graphic capability. (Mine is an NEC P7 24-pin wide carriage). For example, to have text printed in anything but the supplied printer fonts requires the use of screen dumping. Every printer use a fixed font, though it may feature 2 or 3 variations of that font. Using screen bit-mapping requires the screen font to be from 1.5 to 3 times as large as the required printed font. For example to use the NEC P7's highest quality mode (360 dpi) requires that the screen font should be at least 30 to 45 point which, quite frankly, looks ridiculous on the screen. To do this you have to set the margins of your document up to 18 wide. Consequently, the screen will scroll. This is not a happy way of achieving large, high-quality printer dumps. Although the printed page is very good indeed it doesn't quite match the crispness of a laserprinter.

Printers supported are, at present, the MPS 1000 and 2000, Diablo 630, Epson LX, FX and EX, HP Laserjet, Juki 6000 and NEC Pinwriter. Selection of your required printer is by pop up window and a few clicks of the mouse button. The default printer is an MPS 1000 but by changing the configuration file, an ordinary ASCII file, this can be changed to your particular printer.

To set up your document for printing select 'File Printer setup'. This allows you to choose the exact printer required, the spacing of 10, 12, 15, proportional, or screen dump. Proportional should be used with care and I recommend experimenting before typing your text on best paper. The other printer option to be set up is parallel or serial input. Page sizes are selected from 'File Page Setup' and include A4, US letter, US legal, International fanfold, or your own choice. If for example you wanted to print a batch of standard 1.5 labels, then by selecting length and typing in 1.5 your pages are automatically paginated to the size chosen. To assist there is a dotted line across the screen where the page ends. Finally selecting 'File Print' gives a requester with several options, including the variations of quality: draft, standard or high, page range to be printed, number of copies and automatic or single feed.

There appears to be one snag which I don't like at all. If you have got yourself somewhat out of sync in your handling of the print system then the program trips you up. This is what happens: assume you have inserted your paper, set up the print options and select 'File Print' etc. To stop printing in the middle of a page press the space bar. Assuming you don't like what is being printed you will quite likely remove the paper. Selecting cancel print from the requester that has popped up will result in the square busy pointer coming up. At this point the computer is in mid-air with no where to go. To all intents and purposes it has locked up. No amount of key pressing has any effect. What has happened is that the printer wants its bit of paper back but it doesn't tell you that. You're supposed to guess. Insert some paper and all is restored. This is fine when you know how, but the program doesn't tell you.

Setting options and Formatting

The page format is controlled by a rather hefty ruler line across the top of the screen page. The first ruler cannot be deleted and if you try, a requester pops up to remind you. The ruler permits setting of line spacing (3 options) and the left, right, center and justified margins. Tabs are also controlled from the ruler. This is the simplest system of setting tabs I have ever seen and I've used six different word processors at various times. The margin tabs are small white triangles whilst the intermediate tabs are orange; this assumes the Amiga standard colours. The tabs can be moved around by picking them up with the mouse button and putting them down wherever you wish. The type of tab can be altered by holding down the left Amiga (Commodore) key and clicking on the appropriate triangle. The options allowed are left, right, centre and decimal.The ruler can be inserted wherever necessary to change the format of the document. At this stage your document hardly looks WYSYWIG. Selecting 'Edit Hide Ruler' removes the rulers and previews the finished document. If you require a header or footer selecting 'Edit Page Header or Page Footer' allows new text to be typed for that purpose. To include a page number simply insert a # wherever you want it. The page will automatically be paged as you work through. The first time you use one of these options it is rather disconcerting, especially if you have text on the screen. The whole screen clears, and you would be forgiven if you thought the text had been zapped. It hasn't. Selecting 'File Close' restores the text to the screen complete with headers and footers all nicely positioned. I think an on screen requester asking if finished would be useful when entering headers and footers

The default start-up mode means you can start typing new documents straight away. The default font is Diamond 12. a bit large perhaps but very clear and readable. This raises a useful point. Vizawrite's capabilities allow you to use any font you wish. I use a font called ST, an 8 point font which is on Fish disk 81. It's a bit like Diamond only smaller. Cutting and pasting is as simple an exercise as you could wish, although this time all the commands such as cut, copy and paste are available from the keyboard as well as the menus. A nice touch is the ability to highlight a complete document ready for cutting or pasting by clicking once on the page number gadget in the lower left hand corner. If you only want a specific area highlighted then you can click twice on the space after the first word of the block, hold down the shift key and click once on the end of the proposed block. The area is instantly highlighted and you can then cut or copy as required. It is also possible to cut and copy across pages as well as multiple documents.

Associated with these actions are finding and searching. This is fine as far as it goes but as of today (24.4.88) there isn't a spelling checker. However, all is not lost as ICPUG members can choose from a selection of spelling checkers from the ICPUG Amiga library. Provided your Viza documents are saved in lines format then these checkers will work well. Back to finding and searching. There are three options provided here. Find only works forward, there is no backward search. This could be regarded as a pain but considering getting back to the beginning of the document is so fast and simple it is not worth worrying about. Find with replace is useful. If you spelt CAT with a K then selecting 'Find Change Change all' will allow multiple changes to take place right through the document with no further intervention from you.

Saving a document follows the simple style of all the other options in Vizawrite. Select 'File Save as' brings up a requester with options to change the disk drive, drawer or directory, and the format of the document. The default format is Document, the other two are Lines and Paragraph, which save in ASCII format. This is of course necessary if you want other systems to read your files. The basic Save option will automatically save the document and overwrite any previous version. Use the Save As if you require various versions. At the end of your epic session selecting 'File History' will show how large the document is. This option allows you to append your name to any document as well as invoke the password option. All documents are automatically date stamped when they are saved. Having set up your defaults for the session it is handy to know that you can have as many windows open at once as you feel happy with. This allows for various versions of the same document readily available just by clicking on the front and back gadgets of your document.

Glossaries

This is a very useful feature that allows the incorporation of standard paragraphs and documents in your text. Selecting 'Glossary Include' allows the automatic placement of text at the cursor position. All the previous text is moved accordingly. I use this facility everyday and perhaps a short explanation of how will throw a little more light on this feature. Making up restaurant menus can be easy or difficult depending on the way the kitchen staff feels. Whilst I usually work at least one week ahead I prefer to be two weeks ahead in planning. If menus are constantly being changed for one reason or another then typing menus that are likely to be changed is a chore, a complete waste of time and expensive in headed notepaper. By incorporating all my menu choices (about 80 in all) in a glossary I can build a menu in no time. It's quick and very simple. To incorporate new choices or change existing ones you use 'Glossary Maintain'. Again all done by clicking on gadgets in a window.

Images

This is where Vizawrite departs from being just another wordprocessor. Whilst you cannot create illustrations in Vizawrite you can include images created in programs such as DPaint. The image should be created in black and white and saved as a brush. Position the cursor in the document and select 'Image include'. Up comes a requestor asking for the disk drive to be selected and the drawer in which the image resides. Select the image from the scrollable window and click on the name twice. The text will be moved to include the image. Images can be cut or copied across documents just as easily as text. If you have a requirement for a set of standard images then these can be saved to a glossary and called up quite easily. Lastly, images can be sized or moved within the document. Click once on the image and it becomes framed. The four corner points of the image are used for sizing horizontally, whereas the middle points size the image vertically.

Mail Merge

Mail merge is in almost every wordprocessor I have ever used, certainly in recent years. The system in Vizawrite is quite simple, perhaps a little too simple. The basic document is typed in the usual way and saved. At each point you want text to be inserted left and right arrows < > are added without a space between. When a field of data is merged in the document is automatically reformatted.

The data file from which the information is taken is straight ASCII. It could be a file exported from a database system or it can be prepared in Vizawrite and saved in lines format. The fields, as they are called, must be typed into the data file in exactly the same order as they are to appear in the document. The only problem is that the data must appear for every occurence. In other words if 'Fred' appears four times in a document then 'Fred' must appear as many times in the data file. However, a reference to 'name' can call 'Fred' every time. This means that you only need to include 'Fred' once in the data file.

Style

The style menu allows different styles of text and font to be incorporated in a document. Unless you intend to print in all the various styles then this facility will only help in presenting an alternative screen image. However, standard, italic, underline and bold as well as superscript and subscript can all appear at once. Mix this with different fonts and a very stylish document can be created.

Configuration

In early versions the ability to configure Vizawrite was limited. However, since later versions became available (I'm using v1.8) the configuration abilities have been considerably extended. It is now possible to select the disk drive on which the data files are kept, the printer, font, print quality, start-up page size, and much much more. This will enable you to have various configurations for different jobs. The configuration file is saved in lines format and can be edited at any time. If this is done during a session then the alterations will not be used unless you quit Vizawrite and reload the program. The latest improvement to Vizawrite is the addition of a 'Profile' facility. Basically this enables you to set up your printer and control sequences pretty much as you like. As with all useful attributes it is not that easy to use at first and it would be wrong to suggest otherwise. However it is very useful and I recommend you explore this facility thoroughly.

Conclusion

Vizawrite is a different approach to wordprocessors and forms the basis of a powerful desktop processor. Vizasoft are currently exploring further options to include for future releases. These include an extensive spelling checker and Thesaurus with all the industry standards such as search and replace singly and globally with optional word choice. I understand automatic date/time functions are to be included in headers and footers. Also in the Viza melting pot are full page layout with all the options this offers and full-blown kerned text (proportional spacing). There is no doubt that Vizasoft have got the bit firmly between their teeth, ensuring that Vizawrite will become high on the list of desirable programs for Amiga owners. If you havn't yet bought a wordprocessor for your pride and joy, keep it happy and buy Vizawrite.

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REVIEW - DISK DEMON

by Keith Cottam

Following recent reviews of speed enhancers for the 1541 (Vol 9 No 3 Page 287-Dolphin DOS and Vol 9 No 6 Page 593-The Phantom) I would like to offer my experiences with Disk Demon by Datel.

Overview

Disk Demon is a parallel speed enhancer for the 1541 running at 2MHZ. The advertisments quote up to 60 times faster loading for program files and loading 202 block program files in under 3 seconds.

The self fitting kit comprises of :-

(A) Main PCB for 1541
(B) VIA Chip Adaptor Board for 1541
(C) Throughbus User Port Connector for C64
(D) Replacement Kernal Board for C64
(E) Instruction Book
(F) Utility Disk

Note: Items B and C are connected via a ribbon cable.

Installation

It is necessary to open up both the 1541 and C64. Three chips are removed from the 1541 and two adaptor boards inserted. Two of the orginal chips are replaced and the third is discarded. A ribbon cable from one adaptor board exits the 1541 (slight case cut found desirable) and connects to the C64 user port which is duplicated on the connector.

The C64 requires a Kernal ROM replacement which has an exterior switch unit for permanent fixing if desired (this switch can switch out Disk Demon if loading problems are subsequently encountered). The instruction book is quite clear on what to remove and install and is adequately illustrated. Installation on my socketed chips was straightforward and should present no undue problems to a careful installer. The instructions mention that any soldered chips would require desoldering and a socket (not supplied) fitted which may require an experienced installer. A power up test on the 1541 and C64 reveals if installation is satisfactory before final case closures.

Performance

The following table represents results with Disk Demon switched IN for fast operations and switched OUT for normal operations.

TEST	IN	OUT	INCREASE
SUPERSCRIPT 64			
Load Main Program	39	107	2.74
Load File (14 blocks)	5	10	2.00
Save file (14 blocks)	6	11	1.83
Spell check (8 blocks)	75	208	2.77
SUPERBASE			
Load main program	37	117	3.16
ELITE			
Fast Loader	31	39	1.19
Normal Load	12	121	10.08
BASIC			
Load Program (136 blocks)	3	107	35.67
Read Seq File (32 blocks)	21	37	11.76
FORMAT	15	-	-

Other facilities

16 Commands are available from the function keys including: Directory; Load; Run; List; Format (35 or 40 tracks). In addition there a number of other commands: lock and unlock Files against accidental scratching, turn speed load off, return to standard Commodore DOS.

In use

On my disks I have a Loading Menu which is used to selct and fast load progam files. With Demon Dos, this is replaced by F7 for Directory, F5 to Load Program, and F3 to Run, displaying a significant improvement in up and running time. From the performance table it was discovered that one commercial program could not be loaded with Disk Demon switched in. On the other hand Elite which has both fast and normal load options performed quicker in normal than fast, no doubt due to some interferance from the program. It does not appear possible to use tape with Disk Demon switched in as the Shift and Run/Stop looks for the first program on disk.

Further delving

Disk Demon is of German origin assembled in UK and variations in function availability require some investigation. The packing box suggests that a screen dump is available, although neither the instructions nor advertisements mention this. Again, the box indicates calc in hex, and the advertisment number conversion, although the instructions do not explain how this can be achieved.

Conclusion

Useful speed increases have been obtained with Disk Demon for both BASIC and commercial programs. It may be unwise to directly compare the results achieved by different members in uncontrolled tests. In my trials the timing was by wrist watch stop clock but as certain loading times were so rapid a small time error would produce a large speed increase. However Disk Demon transforms the 1541 and the C64 User Port remains free. The package contains a utility disk with a 15 second copier, file copier and error checker.

The current cost of Disk Demon is £64.95 and is available from Datel Electronics. A C128 version is also available.

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LEARNING FORTH BACKWARDS

by Richard G Hunt
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Introduction

Learning Forth Backwards is based on a series of articles that were first published some years ago in the magazine now known as Comodore User. The series started as 6 articles, of which 5 were published. The sixth fell foul of an editorial decision that effectively lowered the reading age of the magazine below that capable of understanding anything but games.

Since that time my own understanding of Forth has matured, and I have successfully implemented FIG Forth on the Commodore Plus 4 and C-64 machines. (Both versions ae available from me, on disk or tape, together with a 60-page A4 size manual, at £9.90.)

The original articles appear now in fully revised form and have been expanded to cover those areas which lead the beginner into more advanced knowledge of the language. Although there are of course many excellent books on Forth, I have received in my capacity as evangelist of Forth in the Independent Commodore Products User Group (ICPUG) many a request for basic explanations of how to get started. Here then is my response: what I originally described as the DIY language now gets the DIY manual to go with it! Members may recall a recent excursion into elementary Forth in these pages. I make no apology for beginning at the beginning again.

CHAPTER 1 - In the Beginning was the WORD

I assume that the reader has some knowledge of a computer, such as a home microcomputer, and has a little experience of using a high level programming language such as BASIC. Forth is a programming language, like BASIC, but here any similarities end. That is to say, Forth requires a different approach from BASIC and so the beginner to Forth should try to remove from his/her mind any preconceptions that BASIC may have given him/her and start afresh. On the other hand, Forth shares with BASIC certain attributes of a programming language, such as syntax, procedural execution and the like. Syntax provides the rules which govern the way the different commands or statements are put together. Procedure governs the sequence in which things are carried out.

For most people, Forth will be a package that has been purchased for their computer in much the same way one would buy a game or a word-processing program. The computer will most likely be one of the home computer variety,

such as a BBC, Commodore or Amstrad. Possibly it may be IBM PC compatible and run Forth within the DOS operating system. For the rest it is most likely Forth will have been implemented specially for the operating system of the appropriate machine. To the user, at least at the beginning and for some time thereafter, all of that is transparent. Forth is a self-contained environment in which all things are possible. It is assumed that the user knows how to invoke Forth on his/her computer. Some comparisons with BASIC will be given as most machines come ready equipped with that language. Alice (in Wonderland) was directed by the king, to "begin at the beginning and go on until you come to the end; then stop." So it shall be with Learning Forth. The backwards slant will reveal itself in due course.

There are a number of versions of Forth in the wide world. The different versions are known as 'standards', and although they may have much in common, some parts of them work slightly differently from other versions. In this work, the standard used is FIG-Forth, as issued by the Forth Interest Group (FIG). Other standards referred to in books are FORTH-79 and FORTH-83. No further reference to these will be made, simply because the majority of implementations on small microcomputers are the FIG standard.

Let us start by looking at some of the features that make Forth rather different from most other computer languages, and certainly from the BASIC that may be familiar already.

At the heart of Forth is perhaps its most vivid feature - its extensibility. BASIC is static and fixed. You can no more add a command to do something that it does not do than you can fly, unless you are a clever programmer. The whole concept of Forth is that the user extends the language's capability by adding things to it until it does do what you want. The kernal of Forth is its 'dictionary', a series of entries that are called "words". Each entry in the dictionary is defined in terms that the computer understands, actually as a series of addresses pointing to machine code which performs the appropriate function. An editor function enables the user to add definitions in terms that he understands, ie English, to the dictionary. The resident compiler renders the English definitions into the machine addresses that the computer understands. For example, there is a Forth word + which performs addition of two numbers. There is also a word that takes a number and copies it so that its duplicate is left. It is called DUP. The word . (dot) displays a number on the screen. A new word can be made out of these words which we could call DOUBLE. It would be defined in terms of those three Forth words as -

```
: DOUBLE   DUP + . ;
```

(Please ignore the colon and semi-colon. They will be explained later.)

The Forth dictionary now has a new word, DOUBLE, that takes a number and displays its double. DOUBLE is an extension to the dictionary. So entering at the keyboard -

```
6 DOUBLE <return>
```

will cause the Forth interpreter to output

```
12 OK
```

The dictionary may be listed to the screen by entering the word

```
VLIST <return>
```

If the definition of DOUBLE has been entered as shown above, it will be the first word shown. Actually it is the latest definition in the dictionary, not the first, which leads on to another feature of Forth. Forth appears to do everything backwards. Enter at the keyboard

```
1 2 3 <return>
```

and Forth responds OK. Now enter

```
. . . <return>
```

and Forth responds

```
3 2 1 OK
```

The reason for this is that Forth uses what is known as a stack for handling all numeric data. The (data) stack is usually likened to a pile (or stack) of plates placed one upon another. As the stack grows, it is safe only to remove the topmost first: hence LIFO (Last In First Out). The numbers entered above obey that dictum. Moreover, use of the stack for handling numbers (passing parameters: the stack is also known as the parameter stack) also demands the use of postfix operators. Postfix or Reverse Polish Notation (RPN) is different from Infix or Algebraic notation where the expression "(A + B) * C" can be stated. Forth and RPN would express that as "A B + C *" so as to arrive at the same solution (1). The values A and B are first placed on the stack. The word + looks for two 'operands', removes them and places the sum back on the stack so that the value C may be placed on top and another dyadic operator, the word *, may perform multiplication in the same way. Forth is referring back from the operator in order to process the data left on the stack.

This "backwards" feature appears in another form as well. We saw that the word DOUBLE was the latest dictionary definition by entering VLIST. Forth links each entry in its dictionary to its immediate predecessor. When the Forth interpreter is invoked by pressing the Return key, Forth starts searching the dictionary at the latest definition and works backwards in the dictionary either until it has found the word it is looking for or it reaches the first dictionary entry where it stops. This feature has impact on the way in which the Forth programmer constructs new applications, and will be discussed in a later chapter.

The Forth compiler was mentioned briefly above. A compiler takes source code, which may be text written to a particular syntax, and turns it into machine-readable code. In many programming languages, a compiler is a separate set of programs which must be invoked after the source code has been completed. If there is an error, the source must be corrected and then re-compiled. Forth is fortunate in that the compiler is resident. Moreover small sections of code may be written, compiled and tested without leaving the Forth environment.

In the definition of DOUBLE above, a colon and semi-colon were used. These are important Forth words whose function is to switch on and off the compiler. New Forth words are defined by means of the "colon definition" process. Any new Forth word may be defined for example as -

```
: NEWWORD   ELEMENT1 ELEMENT2 ELEMENT3 ;
```

The colon begins the definition, telling the interpreter to switch on the compiler. The name of the word in the dictionary is shown as NEWWORD, and its action is defined in terms of existing Forth words ELEMENT1 ELEMENT2 &c. All the compiler does is to find the address of the elements in the definition one by one and place the addresses as pointers in the definition of the new word. The definition is terminated with the semi-colon, which switches off the compiler, so returning control to the interpreter. The equivalent code in BASIC might be something like:

```
100  IF A$ <> "NEWWORD" THEN 120
110  GOSUB 1000: GOSUB 2000: GOSUB 3000
```

```
120 REM continue...
:
1000 REM element1
2000 REM element2
3000 REM element3
```

In this way the dictionary is extended at will, adding new words, each linking to its predecessor, and indeed often dependent thereon for its action. Compilation is achieved either in direct mode at the keyboard or by LOADing screens of source code which were previously edited using the Forth Editor.

One last feature of Forth needs to be stated before plunging into interactive conversations with Forth. The only Forth syntax of note (other than the requirements of RPN) is the use of at least one space between each Forth word. (In the definition of DOUBLE, three spaces were left between the name of the word and its first element, DUP. This is, by convention, for cosmetic reasons, and is not required by the syntax.) Even the left bracket (is a Forth word. It is the equivalent of BASIC REM statement and preceeds a comment. That comment must have a space before it, e.g.

```
( THIS IS A COMMENT)
```

whereas

```
(THIS IS A SYNTAX ERROR).
```

Forth words make statements, paragraphs and so on. Forth can be written to read like English. It can be helpful to do so, especially to start with. Ultimately of course that may be unnecessary. If however a meaningful word can be used for a definition, it may assist in understanding the code, better than an abbreviated name that means something only to its inventor, even though it is 15 characters or more long. Forth words may have a name of up to 31 characters long, although that length may be used rarely. Words have meaning. Make sure they retain their meaning, in Forth, even as in English!

Words are the fundamental elements of Forth. The most primitive Forth words are defined in machine code. Indeed they are called 'primitives'. More complex words are built on and of these words. The dictionary consists of 150-200 such words to start with. Very soon though the user finds that he/she needs other words and they become as much part of Forth as the original nucleus.

Most Forth implementations are supplied with some form of manual. The manual should provide a standard listing of the Forth dictionary and the meanings/actions of the words. The dictionary is not listed in alphabetical order. Rather it is in ASCII order, which is a numeric code sequence. Hence it will probably start with the word ! (pronounced 'fetch') and end with the word] . There may be an additional glossary of words specific to the machine or implementation. Those words are not likely to be standard nor will they be usable on every machine. In later chapters, when such words are used, an explanation of their function will be given so that their implementation on another machine may be possible. Generally speaking Forth is highly portable, in the sense that code written on one machine will function on another, but it is machine specific, non-standard words that do most to hinder this.

It will be useful if the reader can refer to the dictionary glossary whenever a new Forth word is mentioned from now on. It contains information about the word entry which may be vital to its operation, as may be seen next.

Footnote:

(1) The Algebraic notation is in fact something that we learn at school after we have learned to do our sums. It may come as a surprise that most of us learned how to use RPN (though it was most certainly not called that) when we learned simple arithmetic. The addition of two numbers at infant's elementary level can demonstrate this. Let us add 5 and 7.

First a child will lay out the numbers to be added in a column:

```
5
7
```

Then the addition sign will be appended and a line drawn thus:

```
 5
 7 +
---
```

The sum is then performed. If that is not bare RPN, stated as 5 7 +, then I do not know what is! The stack - the column of numbers - is upside down according to the way I visualise the computer's stack, but the principle is identical. (In fact many Infant Schools do not now teach numbers like this, but that is not relevant here.)

PLUS4ORTH

by Richard G Hunt

Erratum - Forth quote delimited text

In the last issue, vol 10 no 2, I gave some listings of Forth definitions that used quote marks in their names and in subsequent definitions. Unfortunately, in the translation from sequential file created by Script/Plus to the format used by the Editor, all the quote marks disappeared. Also unfortunate was that that disappearance made apparent nonsense of the code. I give below the words' names (together with quote marks) in the order that they appear.

```
SCR # 1
       "
       (")
       ["

SCR # 2
       ABORT"

SCR # 4
       LOAD"
       SAVE"

SCR # 5
       LOAD["
       SAVE["

SCR # 18
      LOAD["
      SAVE["
```

Even with this additional information you may find it difficult to make sense of the code. If this is the case please send me a diskette (together with return medium and postage) and I will copy the sequential file containing the Forth source to it. The fault is partly mine - mention has been made in the magazine about problems with quote marks. I did not think to alter code written directly from an operating Forth system. Also, the heading of Screen 1 QUOTE DELIMITED TEXT, failed to alert the Editor. Ergo, mea non maxima culpa.

COMPUNET - REVISITED

by David Martin

In January I received the Compunet software for the Amiga, which allows one to look at the Guest area on Compunet for free. Although copyright remains with Compunet and Ariadne the software can be freely copied and distributed since the online facilities can only be fully used on registration with Compunet.

I chose to take out a Gold subscription for £15 a quarter, this provides 1000 pages of free storage and for an extra £3.45 (now £8.50) a quarter allows free unlimited access to Compunet outside business hours. At the present time paying another £10 per quarter gives unlimited storage, which is a fantastic bargain when compared with the cost of operating a database on Prestel. Previously the £10 charge gave 10,000 pages of free storage.

In the three months I have been using Compunet I have found it far more reliable than when I last subscribed in November 1986. The speed of accessing frames is much better, no more waiting 2-3 mins for a GOTO to work or for a frame to be displayed. Interestingly, of late I have had more log-on problems, slow operating and mailbox failures on Prestel than on Compunet.

To preserve compatibilty between machines text frames created on the Amiga use the C64/128 lo-res character sets, re-mapping the keyboard. This is explained in the Compunet documentation and there are a couple of frames supplied that show all the C64/128 characters.

Logging onto Compunet, the first thing I noticed were the amount of directories and uploads, far more than in 1986. If this is due to the increased reliability or unlimited storage I am not sure. The quality of the directories has improved, for example there is a Meteorological directory run by John Whitty (JJW1) which contains approx 700 frames of detailed weather information. There are directories on sport, biking, cycling, cooking, television, music, films, photography and all kinds of subjects as well as the usual computer related frames. Remember, these directories are created by the users for the users, it is like running your own bulletin board without the problems of having to dedicate a computer, disk drive, modem and phone line to its running. Compunet provides multi-user access to your directory, free couriers and if you wish to sell frames and programs you can, and Compunet will deal with the collection of payments.

Compunet provide a news directory, Federation II and Partyline among other things. The news directory provides details system changes, telephone numbers and a round-up of some of the latest uploads. As there are 1000s of uploads a week, there is no way they can cover all of them BUT in the KKYREV directory JJW1 seems to be able to review or advise on almost every upload.

Federation II is Compunet's new multi-user game where, through a link, subscribers enter a world of inter-planetry trading, where they use their space crafts to transport goods earning money for delievering on time. I have not seen the game but it sounds like Red Dwarf without the studio audience.

Partyline is a teleconferencing system. When you consider that it has been on Compunet for over two years, I wonder why Micronet say their TeleTalk is innovative. A few extra commands have been added since I last used Partyline, one to allow only selected people into your room and a hush command that prevents someone being heard by others if they are causing a nuisance in a room.

Amiga owners will find many programs to download. Most are from the public domain libraries, although some programs and demos written by users are now beginning to appear. Amiga programs tend to be far larger than C64/128 programs so uploading them can take a very long time. Compunet do offer a service where you mail them your program on disk and they will upload it. There are plans to provide a 1200/1200 baud port. If your interest is graphics then you will find many original works on Compunet. IFF format pictures are displayed on your screen as they are downloaded. There are some music demos, one of which is the largest program every placed on Compunet. A mere 256K!

There is a specific sectiona called AMIGA area where users can upload help, queries, tips and needs. Two other good Amiga areas are 6510 run by Justin and ZUGGERs directory run by Zugger. ICPUG also has its own Amiga directory looked after by Brian Fowler (BF6), here you will find help and advice connected with the Amiga. Technical Co-ordinator Bavin Clarke has started a general help directory in the ICPUG CUG.

Compunet offers a person the ability to display their talents, be it in coding, graphics or music. A number of people now working for software houses began by uploading on Compunet. Writers for magazines have also been found via Compunet. For those who don't upload, Compunet offers in effect the ability to access hundreds of bulletin boards with one phone call plus electronic mail and the multi-user game Federation II.

PAGING PRESTEL - A NEW EDITOR

by David Martin (01 999 7086)

Hopefully by the time you read this article I will be a co-editor of the ICPUG frames on Prestel and my editing password should be through in a few days. Jim Clavier has had to give up editing the Prestel frames because of other commitments. Please do not expect dramatic changes to the ICPUG frames, intiatally I will be using Jim's frame design, with minor amendments.

My first priorty has been to locate all the ICPUG frames and check their routings. The next stage will be to amend existing frames and to create some new areas as follows:-

NEWS -- 810 213 205 News about ICPUG, CBM and related subjects.

LETTERS -- 810 213 206 Your mailboxes to me. If you do not write then there will be nothing to read. My mailbox number is 01 999 7086.

EVENTS -- 810 213 207 Are you a regional group organiser? Is your group having a special event? Drop me a mailbox and let me know. I will place the info in this area, along with details of forthcoming shows and exhibitions.

FEATURES -- 810 213 208 The old technical area under another name. Calling it this allows for a wider scope of subjects from the pure technical to items on consumer rights. If you have a subject you feel others would find interesting please do not hesitate to mailbox me.

REVIEWS -- 810 213 209 At the time of writing I have not decided whether to have a reviews area. The problem is finding people prepared to contribute.

REGIONS at 810 213 202 will probably be renamed Groups and split into regional and specialist groups.

The NEWSLETTER area 810 213 203 and DISCOUNT CORNER 810 213 204 will basically remain the same, except listings of Newsletter articles will be removed, to give me frames I can use in other areas [humph! - Ed.]

During the alterations you may find areas are closed while being edited and routes are not as expected, I hope to keep any disruption to a minimum.

That's it for now, you can find ICPUG in the ClubSpot 810 area of Prestel. Our database starts at 810 2132 or you can use the keyword ICPUG. What's New is on 810 213 25, the Main Index is on 810 213 20.

***

SPECIAL OFFERS
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AMAZING OFFER
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SAME DAY DESPATCH
low, low prices!!
MUSIC
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★★ SPECIAL DEALS ★★
Cavendish Commodore Centre
66 London Road
Leicester LE2 0QD
Tel: (0533) 550993
ACCESS or BARCLAYCARD

REVIEW - SPIRIT INBOARD

by Alan Mills

Today, more and more software packages released for the Amiga rely upon greater usable memory than the standard 512K. It made life difficult for me when having loaded my most able spreadsheet 'VIP Professional' I would find a measly 48K remaining to use for my work. To overcome this shortage I would split my spreadsheet into many smaller files, devoting macros to carry out the larger tasks and bringing in the data from the many separate files. It was tedious and terribly slow, but it did work.

I had given thought to expanding the memory of my Amiga even before I tried to make use of my spreadsheet in the way I intended, but following the release of the Amiga 500, and the availability of internal memory that allowed expansion to 1Mb, I sought a similar board for my humble machine. When I read in an ICPUG Newsletter that it was likely the Amiga 500 would be supplied in the near future with 1Mb as standard I decided the time had come. After seeking advice from computer outlets and obtaining specification sheets for the few that looked interesting I eventually went for the 'Inboard 1000', manufactured by Spirit Technology, Utah, USA, and obtained it through the Cavendish Commodore Centre. One of the reasons I chose this internal board over others was that although I was only seeking to expand by a single megabyte, there was provision on the inboard to expand by a further 1.5 Mb at a relatively low cost. It arrived about 10 days after my order was placed with a little note of apology for the delay (delay? What delay?).

The package was quite small and contained the 'L' shaped board and an installation disk, all suitably padded against the barbarism of the postman. It looked neat and well made and Cavendish had kindly already installed the 32 RAM memory chips into the board, saving me some work but also preventing a proper test of all the chips; more of that later.

Since, like most people, I am a little afraid of interfering with the internals of anything electronic I was determined to read the instructions at least twice before I loosened my first screw. Everything to be read and seen is on the disk and I am fortunate to have a printer to output the 9 pages of text (and 2 small diagrams) containing the instructions. Since for safety's sake I was continually refering to these instructions I would think Amiga owners without a printer might find this a little irksome and annoying. The only other direct information to assist in fitting the inboard were 8 diagrams, displayed on screen. Six showed the location of screw holes and which ones to remove, and the other two showed the location of the 68000 processor and the PAL chip on the underside of the 'daughterboard.' To install the Spirit Inboard both the top cover and the FCC radiation shield over the 'motherboard' must be removed, which is well explained and easily accomplished. There are several short cautionary messages about the danger to electronic components through static electricity and a well advised suggestion to work with the boards in your bare feet.

Once inside the next step is to remove the 68000 processor from the 'motherboard' and place it in the Spirit Inboard, which for me was a very nervous time. The manual suggests that the only tools needed are a Phillips and flat head screwdriver and a pair of needle nose pliers. I would have liked to have seen an IC remover supplied as standard, as I found it very difficult to remove the 68000 and be careful at the same time, since it was very firmly seated. It was most uncomfortable hearing the creaks and groans as I tried to ease the processor out of its socket, and I was fearful that damage would result. Eventually I succeeded and then set about the finickity task of inserting the 68000 into the Inboard socket, which is not as easy as it looks. After some 10 minutes (it seemed like 10 years) of gentle easing without success I had a very minor brainwave. Partially inserting the pins on one side of the processor into the socket I pressed the straight edge of the nearest disk along the pins on the other side, and with gentle pressure from above it went in like a dream.

It is at this point that the manual recommends the installation of the RAM memory chips which, in one respect, I was glad to have had completed for me. There are altogether three banks or rows for chip memory labelled as follows :-

```
First  - Bank 0....... .. 512K
Second - Bank 1...........1MEG
Third  - Bank 2..........1.5MEG
```

This ensures the chips are located on the board correctly and according to your size of additional memory. On the board are also three small 'Jumpers' which have to be configured for your board according to the memory size being added, and each of these, labelled JP1,JP2 and JP3 can either be configured as 'ON' or 'OFF'. Simply, and I use my case as an example, a Jumper is two small prongs extending up from the Inboard which when connected by a plastic clip returns an 'ON' configuration. If JP3 is joined in this way and turned 'ON' the Inboard would auto-configure on powerup at memory location $C00000 and add 1Mb of memory, which is my current arrangement. It is possible to configure the Inboard memory at location $800000, although this will mean that that a command called 'Addmem' would have to be installed in the the C directory of the appropriate disk, and then invoked from the CLI. This does have certain advantages in that Kickstart 1.1 software which dislikes the Inboard can still operate, though in that respect I have had no problems at all, and all my 1.1 software works as expected. Cavendish had thoughtfully already connected JP3 for me, but no further Jumpers were enclosed so I could not configure to $80000 anyway. This proved frustrating later as there is a program on the Spirit disk called 'STEST' which is tests the Inboard for four conditions:

1. "Bad" chips or chips not installed.
2. Shorted data bits between chips.
3. Shorted Address lines, marginal and data-sensitive chips.
4. Data retention by checking the memory refresh circuit.

Unfortunately, I was unable to use this program properly, since a prerequisite of 'STEST' is that the memory board be configured at $80000. I tried it anyway and had a minor heart attack as it repeatedly reported all the extra RAM as "bad". However, since the Workbench was still telling me that I had about 1.4Mb I wasn't too worried.

Onto the task in hand. Apart from re-assembly, there are only 3 steps left to complete the Inboard installation. On the underside of the board are the extended connectors from the re-located 68000. These now have to be inserted into the empty motherboard 68000 socket. Unfortunately, the flat cable connected to the disk drive crosses over the lower half of the CPU socket and is then bent to the left to connect to the motherboard. While this wasn't a problem with the processor installed as the cable was just left to run over the top of it, the extended pins from the underside of the Inboard practically put up a barred wall to the cable. This made it nearly impossible to connect the pins into the motherboard socket without cramming the cable into a confined area beneath the Inboard. Looking for a neater alternative I removed the drive unit, disconnected the cable and tried re-arranging the lengthways crease. This didn't work, mainly because the cable was just a little too inflexible, and anyway, from a cosmetic point of view it looked worse than before. So back went the drive unit and, first checking that the extended pins were straight and lined up, I set about connecting the Inboard to the motherboard. I crammed up the cable and gently tried to mate one board with the other. Only one side of the socket and pins are readily visible, but a torch comes in handy before the final push. With a few more creaks and groans they were together, or so I hoped. The Inboard looked quite neat hovering there above the disk drive and slightly to the right of the PAL chips on the daughterboard. There are no screws required to secure the Inboard further, nor do I think any necessary, as it seemed as solid as a rock.

The last two stages are more or less identical and involve hooking microclips, called J1 and J2 to two pins on the PAL chip located on the daughterboard which rather inconveniently is situated upside down on the motherboard. Before you can proceed you must first discover whether your Amiga is an International version or not, since this affects exactly which pins on the PAL chip the microclips must be hooked to. This is easily determined according to whether the PAL chip is labelled 'PALEN' or 'DPALEN'. In my case the chip was 'DPALEN' and I just referred to a well illustrated diagram in my printout of the manual for the correct locations. Oddly though no diagram exists should you have the 'PALEN' chip installed. For the technically minded, this provides the OVR* (override) and XRDY* (external ready) necessary for autoconfig or non-autoconfig options. The microclips are two slim spring-loaded connectors fitted to wires leading directly to the Inboard which when hooked around a suitable pin are held in place by tension. The manual gives me two alternatives in this case: soldering the clips to the relative solderside pins on the PAL chip, which since the daughterboard is upside down is in fact facing me; or hooking the clips onto the gold extension shafts located opposite (or underneath the daughterboard). Since the latter method involved no soldering I tensioned a clip and began poking it under the daughterboard using torchlight to see by and hooked it onto the correct shaft. However it didn't seem very secure and when I tried to hook the second microclip I succeeded in dislodging the first. After repeated attempts I eventually gave up and despite my anxiety about soldering onto my most precious Amiga it now looked like the lesser of two evils.

Leaving the Amiga open I re-connected the monitor and power cables and, standing well back (just in case!) I turned the power on. To my utter amazement, Kickstart prompt came up. In went the disk, and after a successful load, the Workbench prompt was displayed. This was too good to be true I thought, but it was actually working first time, quite unusual for me. Since I had been unable to check for bad chips I was anxiously watching the top of the Workbench screen for 'memory left'. I was half-expecting something stupendous to happen such as a fanfare of trumpets, but of course reality is a bit more mundane, and the only change was the appearance of a '1' in front of the memory digits. Still, there it was in all its glory, and I was most pleased that it worked at all, given my reservations about damaging the 68000 chip on removal.

After re-assembly I meticulously loaded each of my many disks, and to my complete relief every one loaded and functioned normally. Up to this point I have had no problems with any commercial software whatsoever.

Included in the manual is a short trouble-shooting guide which covers the non-arrival or non-loading of Kickstart or Workbench, and provides advice on possible solutions, covering points from the clumsy to the slightly technical. Fortunately in my case it was unnecessary.

The Inboard comes fitted with a Thompson/Mostek zeropower TimeKeeper MK48T02, (or clock to you and me) complete with 2040 bytes of battery-backed RAM starting at location $DC0001, which will last from 5 to about 17 years depending upon variables such as temperature. The correct date (US format) and time are easily set through the CLI, but to display it the clock must be read by the READCLOCK program added to your startup-sequence.

On the Spirit Disk are 18 tools, most of which are aids to the installation process of the Inboard 1000. They are as follows :-

SPIRIT MANUAL. On-screen display of instructions on how to fit the Inboard.
DIAGRAMS. The 8 pictures used to aid the disassembly of the Amiga down to the motherboard.
PRINT MANUAL. Outputs the instructions to the printer specified in Preferences.
FREE STUFF. Six utilities, most of which have nothing to do with the Inboard but may be useful to some nevertheless and include FixHunk, MachClk, VDK Handler, Utilimaster, GOMF, Showprint II.
SPIRIT SET UP. A tool to make the supplied Spirit disk bootable from the Workbench prompt.
NORM SET UP. A tool to INSTALL normal startup, turning off FAST memory. This will not work with non-standard DOS formats.
CLOCK SET UP. Puts the READCLOCK program into the startup-sequence of the nominated disk.
ADD MEM 1.5. A tool to INSTALL the Addmem command to the nominated bootable disk and configure memory at $800000 on startup.
ADD MEM 1.0. As above, but for memory boards expanding by 1 megabyte.
ADD MEM 0.5. As above, but for memory boards expanding by 0.5 megabyte.
ADD-MEM(1.5). A tool to configure 1.5 megs at $800000 without the INSTALL and avoids using the Addmem command from the CLI.
ADD-MEM(1.0). As above, but to configure for 1 megabyte.

ADD-MEM(0.5). As above, but for 0.5 megabyte.
STEST 1000. Undertakes test of RAM chips installed on Inboard.
GFX MEM. Displays graphically the amount of CHIP and FAST memory.
RAM ON/OFF. Toggles the allocation of FAST memory off and on.
CLI. Command Line Interface.
RAM DISK. Provides the instant access to commands usually stored on disk.

The Inboard will happily co-exist with other expansion devices fitted to the side of the Amiga. It does, however, use electrical power, and adds to the load on the 'line' to the expansion bus to the tune of 650ma, and for this reason will count as one external expansion device. There is a short section in the manual on problems that may arise if an expansion product fails to work with the Inboard installed, involving the removal of the daughterboard and changing the PAL chips, but for myself, and for now at least, 1.5 megabytes is plenty. And of course if needs be I can easily step up to 2 megs.

Summary

There didn't seem to be a great deal of difference between internal or external expansion products for my machine when I began seriously looking around. What swayed me towards the Spirit Inboard was firstly that it was inside the Amiga case and didn't leave 'footprints' all over the place. Also, if 1.5Mb were later to prove too little memory for even my humble exploits then I could easily expand. I was initially worried that I would not be able to run programs utilising Kickstart 1.1 and liked the provision for setting up the board so that the memory did not auto-configure. I could easily turn off the extra RAM either through the board itself or under CLI control. Another less important factor was the ease with which I could obtain a specification sheet and the speed of delivery, whereas I am still waiting to hear from a certain British company who market another memory board for the Amiga.

Personally, I would like to have seen the Inboard supplied with a proper manual and an IC remover to ease the heartache, and little things like making the Spirit Disk bootable from the Workbench prompt without having to Install it. The installation proved to be mostly straightforward with the odd fiddly and nervous moments, but overall I am a very satisfied customer and would have no hesitation in considering other Spirit Technology products should the need arise. When I ordered the Inboard the asking price was a little over £300, including the ICPUG discount, but following the enormous rise in RAM chip prices during that week the purchase price shot up to £399-00. Cavendish gave me the option of cancelling my order, but I'm glad I didn't.

VIEWBOOT V1.01

by Brian Meadows

About ViewBoot

Viewboot provides a convenient way of examining a disk's boot block to determine the presence of a 'virus'. It presently checks for the existence of the AEK, SCA, LSD, and Byte Bandit viruses. If the virus check itself is defeated, the program still allows you to view the boot block of a disk in an ASCII format to check for character strings that may alert you to the presence of a virus.

ViewBoot may be called from either the CLI or the Workbench environment. When it is first activated, it will examine the disk in DF0 and then present the contents of the boot block to the screen. You may then choose other drives present on the system to examine by way of an Intuition-type menu.

When ViewBoot has scanned a disk and found a virus, it will display a requester alerting you and stating which virus it is. ViewBoot allows you the option to erase it then or continue checking disks and delete it later.

ViewBoot also allows you to check memory for the presence of a virus, and if it is not able to find any of those mentioned above, it allows you to have a peek at the memory where they are located (0x7ec00-0x7f000) just to be sure. As it does after reading a disk, ViewBoot will display the memory in ASCII format so you can check for character strings which may alert you that a virus has made itself a nice warm home in your computer's memory.

Using ViewBoot

If you are in the CLI environment, just type VIEWBOOT and pretty soon you'll see a odd-looking screen. You can now go about scanning your disks for nasty little viruses. If you want to use ViewBoot in the WorkBench, you must first rename the file 'ViewBoot.inf' to 'ViewBoot.info'. Once you have renamed the file and gone into WorkBench, double-click on the icon that looks like a Jump Boot and you'll be at the same point as the CLI entry.

ViewBoot Menu Options

```
View Boot Block of - df0: Right Amiga-0
                     df1: Right Amiga-1
                     df2: Right Amiga-2
                     df3: Right Amiga-3
```

This option is for viewing the boot block of the specified drive.

```
Install - Install df0:
          Install df1:
          Install df2:
          Install df3:
```

This option will delete the virus and perform an INSTALL on the disk in the drive specified. I would suggest against using this on disks where some form of copy-protection is placed in the boot block. The disk is probably useless if it has a virus on it anyway so your best bet would be to send it back to the software house that released the program.

```
Memory - Virus Check  Right Amiga-C
         View Memory  Right Amiga-V
```

These two options allow you to check your memory for a virus. 'Virus Check' will search for any of the above mentioned viruses and if one is found, it will display a 'found' requester. If one is not located, it will tell you that also and recommend you do a visual search just in case.

'View Memory' will display in ASCII format the memory location of the virus. If you see nothing but a bunch of "..........." you can be pretty sure that one has not found it's way into your computer. Well, at least not at that location... If a virus is found, I would suggest powering-down the system and restarting with a fresh WorkBench disk (assuming you still have one).

When viewing your disks, some ASCII strings to keep an eye out for are:

```
Virus by Byte Bandit (Byte Bandit Virus) - Sector 0
Something wonderful has happened (SCA Virus) - Sector 1
Another future of programming and Spread by Micro-Master (AEK Virus) -
Sector 1
```

I've not seen the LSD virus yet, but a couple of people have told me that Viewboot detects it anyway.

Thats about it for now so I will end this by stating that this program is placed in the public domain by the author (me) and may be distributed freely, but not sold. If you have any comments or bug reports, I can be reached at the numbers listed below.

Brian Meadows (205)854-2356 - Voice or (205)854-6407 - Vikki Highfield's Magnolia BBS (300/1200/2400 bps) 24 Hours a day.

ERRATA

The missing quotes problem appears to have crept in unnoticed to the two programming articles "List to Epson" (page 160) and "Autoboot Extended" (page 162) in the last issue. Their author, John Tanner, pointed them out to us, proving that even we are not infallible. Apologies, John. Others please note: when submitting articles REPLACE " (quote) WITH " (2 apostrophes).

LIST TO EPSON

Listing 1

```
7 print"open2,8,2,"q$"@0:"f$",s,w"q$:cmd2:list
8 print"pR2:cl02:10"q$us$q$",8qqqqrU":if c64 then b=198:q=630
```

Listing 2

```
4 input"Sfile name  ";f$:open2,8,2,f$
9 print"Sqq"b$"poke152,1:g05s";:b$=":"poke b,2:poke q,13:poke q+1,13 :end
```

Listing 3

```
3 input"program name";na$:z$="0:"+na$:open2,8,2,z$:open4,4,14
20000 save"@0:seq to epson",8:end
```

Listing 4

```
2 input"file name";f$:z$="0:"+f$:open2,8,2,z$:a=0:dima$(500)
20000 save"@0:seq to text",8:end
```

AUTOBOOT EXTENDED

Listing 1

```
76,207,34,48,58,42,34,44,56    prints 10"0:*",8  on the screen
```

Listing 2

```
20000 save"@0:autodriver",8:end:rem for c64 or c128
```

AMIGA SOFTWARE LIBRARY

by Betty Clay

[Editor's Note: this article was passed to me, along with Texas Tales, without being checked by the proper authorities (ie: Pete Miles). I have been asked to tell you that some or all of the files listed here may not be in the ICPUG Amiga software library at present. Please do not hassle the Amiga librarians until this has been confirmed]

Someone complained last issue that they rarely saw the Amiga software described in the Newsletter. I took that as a clear mandate to write another article! Here are some comments about only a few of the programs on the diskettes I have sent since the last Newsletter:

ARP11 - Version 1.1 of the Amiga Replacement Project was released in late March. ARP was undertaken by a group of Amiga developers who felt that they simply could not live with the AmigaDOS written in BCPL. For quite a long while, this group has been working cooperatively, and with advice from Commodore, to produce replacements for the AmigaDOS commands written in machine language. At the same time, they are trying to make the syntax of the commands more consistent with each other. This version contains almost all of the DOS commands, along with the library that supports them. They are smaller and faster than the supplied DOS. Complete documentation - user docs and Programmer docs - is included. ARP is real public domain software.

DNET - from Matt Dillon. (Matt is an engineering student at the University of California, Berkeley campus, and began his computing career on one of the original PETs.) DNET is a small networking system that will allow you to use several Amigas in a network, or will permit you to network your Amiga to a mainframe computer that runs UNIX. I haven't used this one, but several members of my club have their Amigas working in conjunction with computers at their jobs. One or two have Amiga 1000s and Amiga 2000s sharing their hard disks. While this is a very early version of DNET - plainly marked Beta - they report that it works well. This is also public domain - not shareware.

BROWSER - by Peter da Silva, who lives near Houston, Texas. There have been several Amiga programs called Browser, which is unfortunate. This one is not a file reader. It is more like a directory utility. When you run it, a small window appears in the upper left corner of your screen. It looks like any other window, complete with close, back, and sizing gadgets, and inside the window will be a list of the disks that are currently mounted. This will include any RAM: or VD?:. If you double-click on the name of a disk, the directory of that disk will appear in a window exactly one title-bar below the original. The windows may be dragged to any position you like, but new ones will always appear in sequence, one title-bar below the last. You may have as many directory windows as you like. Double-clicking on the name of a program will run that program, even though there is no icon for it. The menu will allow you to install tools for reading files or viewing pictures - whatever programs you might use frequently. I install LESS there, so that I can read any text file by clicking on the name of the file and then on the name of LESS. You can do almost any kind of disk housekeeping from Browser. Hold the shift and select multiple files, then copy them, delete them, etc. I find this an extremely useful utility. I'm not sure it is finished yet, though. I find that I sometimes have unexpected gurus while using it, and I've found that it interferes with WordPerfect so badly that I never use both of them at once. Nevertheless, it is well worth a look. The price - absolutely free.

CONMAN 1.1 - Conman gives you the ability to do screen editing in all console windows opened after the installation of the program. It is installed with a device handler (provided), and comes with demos and considerable documentation. You might want to choose between CONMAN and CSH (Matt Dillon's shell), but you really should have one or the other. Either will allow you to edit commands on the screen. Not as easily as we could do on our Commodore machines, of course, but in some ways, this is even better. You can retrieve and edit commands that have already scrolled off the screen! CONMAN is shareware, with a request for $10, I believe.

68KASM - from Charlie Gibbs who lives near Vancouver, B.C. This is a public domain assembler with many capabilities. It began as an assembler published in Dr. Dobbs' Journal, and was then written in Modula 2. Charlie took that code as a basis, translated it to C, added the needed capabilities to make it Amiga specific, and has just kept adding new abilities to it as he learns his Amiga. This is one of the two good freely-distributable assemblers available to you on these library disks. There is another from Wesley Howe of North Carolina and it is on the disk Jim Butterfield will be bringing to England in June. Both are good.

MICROEMACS - Fish disk #119. This is a standard, public domain, programmer's editor. It is not a word processor, but there are many conveniences built into it. For writing programs, and even documentation, it is far more capable than one would expect a public domain program to be. It will take a bit of doing to learn to use all of these capabilities, but if you learned any of the Commodore word-processors, you won't have trouble with EMACS. Besides, this is an AMIGA Emacs - it has pull-down menus.

GAMES - I lump these together just because there are so many of them. Fish disk #120 has BackGammon, Amoeba, and EgyptianRun. Fish Disk #122 has IFF2PCS (makes your graphic into a jigsaw puzzle), Pushover, and Asteriods (a particularly nice arcade game). EVO (evolution game) is on Fish #130, and LIFE is on #131. #136 has an updated version of IFF2PCS and a really neat CLI game called YABoing2. Now, that last one should really give your reflexes a good test. It uses sprites and a lot of other neat programming techniques, and should interest you from either a game-skill or a programming-skill viewpoint. GOMOKU was on one of the April disks. Probably the nicest of all the games was a version of PACMAN that I sent over about the first of April. And these are only the games that have arrived since March!

DIRMASTER - the official disk-cataloging program chosen by Fred Fish for his library. While this is a shareware program, I think it merits the suggested cost. I know that I would have paid more than that for it in the stores, for it does almost everything I need to do to keep up with the tremendous volume of software. The latest version of Dirmaster is on Fish disk #130.

DFC - from Tomas Rokiki of Stanford University. This program is public domain. I use it extensively for copying and formatting diskettes. It will allow you to store an entire disk in (expanded) memory, and then write to two, three, or four diskettes at one time. When I'm making 20 copies for my club, this is a tremendous time-saver. It operates from a window on the screen and has lots of cute gadgets to use with the mouse, but each of those has a keyboard equivalent. It does not attempt to copy protected disks, but it provides many of the desirable features found in such commercial products as Marauder. I think this is one of the best things I've seen lately. It is on Fish disk #131.

FONTS - especially on Fish disk #135. This disk contains many of the TeX fonts that have been converted to Amiga format. TeX was written as a commercial product by Tomas Rokiki, and consists of eight diskettes. Disk #135 contains TexF, written by Ali Ozer of Stanford. It is a program that will convert the TeX fonts to Amiga format, and most of this disk consists of the converted fonts themselves. I believe there are almost 100 fonts on the disk.

Many of them are still in TeX format for you to convert. Partly, this gives you more fonts, because they take more disk room after conversion. In case this is still inadequate for your font needs, Fish disk #138 has a program that will convert Macintosh fonts to Amiga format. Of course, with that one you must still locate the MacIntosh fonts and get them onto an Amiga diskette.

KEEP1.1 - a program to help you sort out the thousands of BBS messages. This program was written by Tim Grantham, who wrote a regular column for the Transactor until quite recently. It will permit you to read the messages one at a time, to move backwards and forwards through the file, and to decide after each message whether you want to keep it for further review or to dump it. At the end of the file, you can give a name and location for storing the files you marked to keep; otherwise, they will be kept in a file with the originial name and the suffix .kpt attached. The original file is left intact in any case. This is a program I find especially useful. It is on Amicus Disk#25.

There are dozens of files of cute icons, pointers, and pictures. One of the bulletin boards in my area puts up a set of 20 or more pointers for each month, and I send them along. There are many one-purpose utilities, such as the extremely useful UNDEL1 from the disk I called April88.3. This one will recover a file from a disk in df0: and place it in almost any place you specify. I am told that you can use FILEZAP to edit the file and have it recover from HD0: or VD0:. I have needed to rescue files from VDK: on several occasions, but have not yet tried editing UNDEL1 for that purpose. One catch - you must know the exact name of the file.

There are useful utilities like calculators of various kinds and home accounting utilities. SCalc41 is a public domain spreadsheet program that has quite a few capabilities. Text editors are on almost every disk. Terminal programs are plentiful, too. I especially like Access3a, but it is especially written for CompuServe, and might not be so useful to you. Handshake16b is full-featured, with VT100 and VT102 emulations that are quite good. It is the best VT100 emulation I know that also allows you to keep a phone book and dial automatically.

The public domain, shareware, and freely distributable software for the Amiga is so plentiful that it is almost a full-time job to look at it at all. Many months I send twenty or more disks to your library. But keeping up with what is there is too much of a task for almost anyone to undertake. That will have to be a cooperative effort.

PACKAGING (that old chesnut)

by Chris Wright.

Now don't all groan, this is a real problem coupled with some other observations. I was asked to write this article by the National Committee and those of you who have read my comments in the 128 Library Column will realise just how bad the situation is. I've no intention of repeating the guidelines agreed by the Committee and set out by Joe Griffin on the back pages of each Newsletter, but it is necessary to enlarge and be specific on certain points.

Packaging

Amiga requests seem to be, on the whole, uniform in that most people use a padded or jiffy-type bag. The usual method is to place a stamped, addressed jiffy bag inside a large envelope. If you want to re-use it at a later date write 'Please re-use this packing' clearly. The librarian will be careful opening the package. Will requesters please put labels on your disks and write the disk requests on them. One of the disks, if not all, should hold your name and address so they don't get mixed up. Is it really necessary to send the little plastic sleeves the disks come in? They are very fiddly and a bit of a time-waster. Why not put all five disks in one bank cash-bag, you know the ones that £5 of silver goes in. They are free. Please use only a little sellotape or just three staples. It is no joke when they are stapled to death or taped with a full roll, just for good measure. 3.5" disks (and cassettes) are in rigid outer cases, and quite sturdy, so should not need too heavy a protection.

Floppy disk requests (5.25" as opposed to 3.5") provide the most amount of work. Sometimes they are wrapped up so completely it takes some minutes to get at them. Others are placed in the wrong size jiffy bags. Can we have some uniformity here, please? Either purchase or make your own cardboard mailer, buy some envelopes that have 'Please do not bend' on them and include a cardboard back to support the disks, or use a padded/jiffy bag and place a piece of cardboard inside. If we can stick to these three alternatives life will be so much easier. Also please label your disks with the request etc. If the packing is to be re-used please write this on the outside.

Who to?

It is difficult to believe that the simple guidelines within the pages of the Newsletter cannot be followed. Requests are frequently sent to the wrong librarian. It is clearly set out on the back pages who requests should go to. So please read the directions before you post. Suppose ten requests a week have to be diverted at ICPUG's expense. This amounts to £2.60 a week or over £135 a year of your money that could be better spent elsewhere. If in doubt re-read the instructions. Most libraries have directory disks with full details included on how to order and who to send the requests to. Please do not add to life's problems. It is always the small things in life that cause the most trouble. The larger problems are soon sorted out. Finally, if your disk is for a double-sided request, Amiga, PC, 8250, 1001, 1571, or 1581, don't go and send single sided disks or cheapos. We in ICPUG have found two peculiar quirks concerning the Amiga and the 128. Disks copied on one Amiga sometimes develop errors on another. This can be because a) the disks are poor quality; b) the Amiga drives are very exacting and it benefits you to provide a good quality disk. On the 128/1571 combination, CP/M requests can suffer the same fate especially if poor-quality disks are used on a 1571 with DOS versions 1 to 4, the ones that created all the problems concerning reading/writing to the second side.

Please be thoughtful and considerate to those who are about to process your disk request. It cannot be stated too often that we all do it in OUR OWN TIME and receive no renumeration for it; neither are you charged any fee! If we all can stick to the above guidelines, disk copying will proceed more smoothly and with less problems. The Librarians will also be most grateful. Thank you.

EXHIBITIONS

by Janet Bickerstaff

Official Commodore Show - JUNE 1988

The 11th Official Commodore Show will be held at the Novotel, Hammersmith, London, W6 from Friday, 3rd June to Sunday, 5th June, with set-up on Thursday, 2nd June. The Show is open from 10am - 6pm on Friday and Saturday and 10am to 4pm on Sunday. Hope you all ordered your tickets in advance and we look forward to meeting everyone at the ICPUG stand.

Personal Computer Show - SEPTEMBER 1988

To be held at Earls Court from the 14th to 18th September, with set up on Tuesday, 13th September.

Commodore Christmas Show - NOVEMBER 1988

This has been planned for 18th to 20th November at the Novotel, but details have yet to be confirmed.

Please contact me with offers help on the stand at any of the above Shows.

AMIGA LIBRARY

by Pete Miles

A brand new multi-virus killer disk arrived from the USA today, courtesy of Betty Clay. I have put this in the ICPUG library and it replaces the earlier Virus killer. This new disk gets rid of the SCA virus plus AEK, LSD and Byte Bandit. I've no idea what the initials stand for but the program will run off the CLI or Workbench. It's multi-coloured and seems to do the business.

Talking of Betty Clay reminds me that I have now had several disks of goodies from her and there is some super stuff. However, you will have to curb your impatience a while longer while I sort it all out. Watch this space.

AMIGA LIBRARY DISK REQUESTS

It seems that many people are still having trouble deciding who to ask for what disk. Yet again we shall try and clarify the matter.

1) If you want the library catalogue disk send one unformatted disk. For any of the library disks send 5 unformatted disks to the copier who deals with the first letter of your surname. This also applies to the 'New Amiga used set' of 5 disks. Please observe the usual number of disks requested at any one time (5)

2) If you require the Fish disk catalogue send 1 unformatted disk, or if you want 5 disks send 5 unformatted disks to the copier who deals with the first letter of your surname.

3) If you want the Amicus catalogue disk send 1 unformatted disk, or if you want 5 disks send 5 unformatted disks to the copier who deals with the first letter of your surname.

Example: Your name is Jones and you want the Amiga library catalogue disk and the Fish library catalogue disk. You send one disk to Peter Reeve for the Amiga catalogue and send one disk to Eddie Moore for the Fish catalogue.

Example: Your name is Sullivan and you want 3 Fish disks, the Amicus catalogue library disk, and 5 Amiga library disks. Send 3 disks to John Grove for the Fish disks, 1 disk to Ray Burt-Frost for the Amicus catalogue disk & 5 disks to Chris Wright for the Amiga library disks.

The Amiga libraries that I compile and look after will have its catalogues of readme files updated on a fairly regular basis. In order, therefore, to keep up with anything new, I suggest you ask your copier for a new catalogue disk of which ever library interests you every 3 months or so.

That's about it. Please do try and stick to these simple guides. It may be necessary to change these details from time to time and all we can say is watch the Newsletter for changes. It will make life so much easier for everyone.

Finally, Ray Burt-Frost, our newest library assistant, has produced a new Amicus catalogue disk. This covers all the Amicus disks we have (up to disk 26). He has written a brief note about each program on each disk on the lines of the Fish disks. Ray has included a print utility to enable you to print out the new catalogue disk readme files or any other text file available.

***

128 LIBRARY

by Chris Wright.

You will all have seen the picture of the overworked Executive with his IN-TRAY full to the ceiling. Well, I feel the same, as I can only just see the keyboard due to it being buried under piles of requests for the latest version of CP/M. Why did everyone send their requests all at once? I am writing this just before the AGM and the total number requesting this version is over 320! If there have been any delays you know why. I am trying to clear them quickly.

There are nine new CP/M disks in the library and these are CU15 to CU23. They include a Turbo Pascal file reader for MS/DOS disks; a desktop utility in MBASIC; MBASIC compiler; a bad sector scanner; a program sizer; some Turbo Pascal programs written by one of our members, and more. Please request the directory disk from your librarian. This also is new and will allow you to print out the program descriptions through your Word Processor.

Now that I have the CP/M disks out of the way, I am making every effort to issue 128-mode programs. These may be available after the next Newsletter and if so they will be shown on the directory disk. To those of you who have submitted programs, thank you.

It never fails to amaze me that people cannot follow simple instructions. I ask for brand new disks for the CP/M version and I get used ones with errors on them. I ask for better packing and they still come wrapped up to the nines. Admittedly, these were in the minority but will someone please tell me what one has to do? Requests in print don't seem to work. Anyone that can come up with a fail-safe method of ensuring near uniformity will win a holiday for ten in Bognor Regis (apologies for those living or born in that town).

C-64 NEWS

by David Miller, C-64 Libraries Organiser.

It's time yet again for my bi-monthly bit on the C-64 library. A new copier, Joe Quintin of Norwich, is taking over from me for letters A-B from this Newsletter. This will give me more time to improve the library. I hope you approve of the new disks - if not, write to me and make some suggestions (not rude) on improvements/additions. I would like to thank all members who put their names on the copiers list, and I promise that I will contact you as and when required.

Old friends: please keep in contact with me even though I will not be doing your copies. I have made a lot of friends over the past months and it would be a shame if contact was lost.

Thanks to: member P Boscott for a very good program that has been included in the library. Other members please note!

I should have time to get another six disks out by the time you read this: B2 and B3 Business Disks, E2 Education, U5, U6 and U7 Utilities disks. Plenty to get your teeth into.

That's enough for this bi-month. Your comments would be appreciated.

```
0  icpug business    b2 2a
30    autoboot           prg
6     printbootdata      prg
11    autodoc            seq
1     penpal             prg
9     .ppchrs            prg
3     .ppsprt            prg
40    .pptitl            prg
59    .ppmain            prg
7     .pputil            prg
3     .ppload            prg
12    penpal indexer     prg
67    penpal doc         seq
53    banner 64          prg
25       calc 64            prg
44       chequebook         prg
22       chequebookreport   prg
29       lablr(sample)      prg
34       mailing list       prg
22       page layout        prg
23       quickscript        prg
11       bhp-virus-killer   prg
5        boot.data          seq
104   blocks free.
```

```
0  icpug business    b3 2a
30    autoboot           prg
6     printbootdata      prg
11    autodoc            seq
44    scl                prg
513   scldata            rel
13    sd.backup.c64      prg
5     1541fastload       prg
1     - - - - - - - -    prg
1     copyright 1987     prg
0     ----------------   seq
2     boot.data          seq
35  blocks free.
```

```
0  icpug education   e2 2a
30    autoboot           prg
6     printbootdata      prg
11    autodoc            seq
24    bottlecaps.40      prg
72    butch & slim.40    prg
39    cube.40            prg
42    fur trade.40       prg
27    in-order.40        prg
39    knight's tour.40   prg
40    logiblock.40       prg
29    magic square.40    prg
10    master mind        prg
44    matches.40         prg
46    object.40          prg
7     parascan           prg
0     ----------------   seq
2     gb quiz            prg
115   map program        prg
41    pmap68             prg
20    sptmap             prg
0     ----------------   seq
4     boot.data          seq
16  blocks free.
```

```
0  icpug utilities   u5 2a
30    autoboot           prg
6     printbootdata      prg
11    autodoc            seq
1     super.aide         prg
1     pre-auto           prg
46    auto               prg
12    xmon.c3d7-cefe     prg
12    xmon.74cc-8003     prg
5     edit.c000-c43e     prg
1     screen.move        prg
1     1                  prg
33    2                  prg
33    3                  prg
1     ----------------   prg
10    doc.driver         prg
107   wedge.doc          prg
65    nmi.doc            prg
29    topics.doc         prg
29    comp.doc           prg
24    credits.doc        prg
24    editor.doc         prg
65    xmon.doc           prg
1     ----------------   prg
2     boot.data          seq
102 blocks free.
```

```
0  icpug utilities   u6 2a
5     autoboot           prg
8     hook               prg
63    main               prg
24    wedge              prg
51    wedge main         prg
53    wedge main2        prg
12    tiny aide          prg
12    function key       prg
64    start&end          prg
25    scroll1            prg
27    scroll2            prg
10    kernal.hooks       prg
13    rel.record         prg
12    trace              prg
21    basic.tables       prg
1     repeat.toggle      prg
```

```
1     double space       prg
2     scroll.toggle      prg
2     unnew              prg
2     system.reset       prg
5     traceflag          prg
3     free.ram           prg
49    screen.magic       prg
21    number.convert     prg
41    variable.lister    prg
8     klist              prg
75    ktiny aide         prg
3     basic.end          prg
3     kernal.messages    prg
1     -more.sourcecode   prg
6     super.aide.s       prg
7     pre-auto.s         prg
9     screen.move.s      prg
15  blocks free.
```

```
0  icpug utilities  07 2a
30    autoboot          prg
6     printbootdata     prg
11    autodoc           seq
7     change name/id    prg
69    disk doc.64.v4    prg
50    disk doc.deluxe   prg
145   disk doctor.doc   seq
20    directory 64      prg
22    disk unassembler  prg
6     fast format       prg
15    non-com screen d  prg
7     +gdump+move       prg
17    seq reader 3.1    prg
8     unscratch         prg
24    yel pages.64.v21  prg
42    disc-wizard ii    prg
15    serial formatter  prg
93    disc-wizard.doc   seq
62  blocks free.
```

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PC LIBRARY

Just a plea to all you noble and upright users of the brain-damaged MS-DOS operating system. Please, PLEASE do not send your library requests to me. We have three eager and willing Librarians who want do nothing more than copy your disks. My job is purely organisational - collating new material, updating the librarians and so on. By all means send me new material for inclusion, but disk copying will always be last in the queue for CPU time. Disks that I have already been sent will be copied - when I locate the box they were packed into and subsequently reach the top of the job queue. NB: I have just moved; my new address is:

68 Cowley Road
Littlemore
Oxford

Remember: follow the rules and make the most of the PC library. Tim Arnot

*** SPECIAL OFFERS FOR ICPUG MEMBERS ***

As Commodore specialists since 1978 we can often help with useful bits and pieces that you won't find elsewhere - at prices that are right.

INCREDIBLE! A500 512k EXPANSION ONLY £79

Price held while stocks last - includes clock/calendar

MIDI FOR AMIGA ONLY £25 (A500) £30 (A1000)

1571 UPGRADE ROM - CURE THE BUGS FOR £10

NEW AMIGA 1000s - MAKE US AN OFFER!

A1000 - 1081 monitors - 10Mb hard disk for A1000 (with pass-thru)

AMIGA SOFTWARE - CRAZY PRICES

Deluxe Paint £19; Deluxe Print £19; Graphicraft £12; Grand Slam Tennis £15; Winnie the Pooh £15; Impact £13

BULK-PACKED BLANK DISKS

Double-sided 3.5in 50 for £49; 100 for £95; 200 for £179
Coloured 5.25in 50 for £25; double-sided black 5.25in 50 for £19

COMMODORE 64/128 BARGAINS

EasyScript £10; Future Finance £10; Master 64 £20; 64 Programmers Reference Guide £5; Inside the 64 (source listing) £5

CBM 128 SOFTWARE - RARE!

CAD 128 £49.95; 128 Plus £19.95; Blitz 128 compiler £29.95; Power C £49.95; Zoom 128 £14.95; Help cartridge £39.95; Swift spreadsheet £24.95; Accountability £99.95; Test Cricket £9.95 (tape) £11.95 (disk)

PET SOFTWARE - EVEN RARER!

Word processors, databases, spreadsheets, games - phone for a free list. We also sell and repair PET hardware (2001/3000/4000/8000 series)

Add 15% VAT to all prices except 128 software & books

SUPERSOFT

Winchester House, Canning Road, Wealdstone, Harrow HA3 7SJ
Phone: 01-861 1166 Fax: 01-861 1773

STOP PRESS - PROGRAMMERS WANTED!

Our associated company *Audiogenic* is aiming to follow up the success of *Impact* with more astounding Amiga games. Can you help? Phone Nigel Alderton, Software Development Manager, on 01-861 1166 now!

DISCOUNT CORNER

by John Bickerstaff

Please refer to pages 92-96 in the Jan/Feb issue and pages 225-226 in the Mar/Apr issue for GENERAL INFORMATION - including when you can contact me on the telephone and OTHER DISCOUNT FACILITIES. Do look at the items in this edition. Some have changed since the previous issues.

CBM HARDWARE is available to members at discount rates. Call for details.

Amiga Centre of Scotland - contact Martin Lowe, 4 Hart Street Lane, Edinburgh, EH1 3RN, tel 031-557 4242 - has agreed to offer a 50p discount to members on the following magazines -- Amazing Computing ICPUG price £3.00, Amiga Sentry ICPUG price £2.50 and Robocity News ICPUG price £2.00. Please note that these magazines are flown over to the UK and sent out by FIRST CLASS post to members. Therefore they arrive on your doorstep about ten days after they appear in North America. If there is sufficient response then the prices may be reduced even further. For back numbers of INFO call for low prices & availability.

Members are allowed a minimum of 10% on all hardware and software which the Amiga Centre of Scotland imports and distributes. These items include MicroBoards (with separate chassis for the A1000 and A500) Studio Magic, Perfect Vision, S Basic, Digiview version 3, Photon Paint, Prowrite 2, Express Paint and AIRD.

Bitstream Publications have now moved so please be patient if you are waiting for a reply to your order or letter. The new address will be advised as soon as possible but in the meantine please address all your letters as before to Flat 3, 26/28 Osborne Road, Southsea Hants PO5 3LT. The Post Office have been asked to forward all mail.

Bytes & Pieces - contact Chris Wright, 37 Cecil Street, Lytham, Lancs, FY8 5NN have advised that they are now able to offer Hard Disks for the A1000 Amiga machines. Please see their advert in this issue.

Gossamer Graphice of 28-30 Napier Road, Ashford, Middlesex, TW15 1TG phone 0932-781152 contact Chris Wood can supply a new printer driver for the Xerox 4020 colour printer. This driver is said by member Philip Brown to be greatly superior to the one on v1.2 of Workbench. Philip is an artist and Tutor at the Eastbourne College of Art & Technology.

LAN Computer Systems Limited have just advised that they can now supply the new Star LC10 colour printer with serial interface for the C64 and C128 machines from stock at £239.00 inclusive of VAT. You may order direct from LAN but please quote your membership number. See the LAN advertisement in this issue for phone number and address.

MICROTEXT of 7 Birdlip Close, Horndean, Hants, PO8 9PW (contact Terry Cassell) have just announced the release of their Teletext Adaptor for the Amiga with built-in tuner. The RRP is £124.80 plus VAT but members are allowed a 10% discount when quoting their current membership number to Terry - orders should be placed directly with Microtext. The Amiga enables the program to read the news out to you! Microtext for the C128 machines: it was previously advised that a special cable was required for all C128 machines. This refers ONLY to the C128D machines, sorry to have mis-informed you.

Silosoft Electronics of 41A The Market, City Centre, Swansea, SA1 3PE - contact SF O'Neill on 0792-794103 - have offered members 25% off their full range of computer software and peripherals with similar discounts on computers, disk drives and printers. Please call Mr O'Neill quoting your current membership number when specifying the items you wish to purchase. Should you wish to write rather than call send your letter to Hillcote House, 6 Emlyn Terrace, Plasmarl, Swansea, SA6 8LZ. Equipments supplied include the Amiga range.

Transactor (UK) Limited are printing the second edition of Transactor for the Amiga which is understood to have some UK sourced articles. It is available to members at £3.50 per issue directly from Unit 2, Langdale Grove, Bingham, Notts, contact Dave Beatty phone 0949-39380.

COMPUNET discount pages - GOTO 326989.
CLUBSPOT discount pages 810213204.

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READERS WRITE . . .

- See the Super* Column for a continuation of the letter from Mr R Lawton.

THE ENIGMA ENIGMA

Robert I Merritt of 20 Abbots Crescent, St Ives, Cambs, PE17 6YA writes: We read in the last ICPUG magazine that the editors of Enigma magazine walked off with all the funds. I have only received one short letter of apology. I have read in Commodore Magazine, April 1988 page 108 that Enigma is still available. I have paid £20 and received only one copy. I advise all ICPUG members NOT to buy Enigma.

NEVER SAY DIE

Mr Walter Davies of The Shop Post Office, Main Road, Worleston, Cheshire writes enthusiastically on the VIC: Thank you for the January Newsletter. It does not include much on the VIC20 which I still use even though I would like to upgrade when I can afford it. I feel that the VIC should still be supported as it is still a useful machine to learn on. Does the ICPUG VIC library have a list of tapes available? I like the VIC 20 screen as the letters are larger and easier to read for older folk with failing eyesight. The VIC is a fascinating machine to those of us who never had the opportunity to learn computing at school. Is it possible to use a modem with the VIC. It would be nice to chat via my computer screen with others of similar interests. I am pleased to see that ICPUG has a disabled group.

- It is very heartening to see that people are still using the VIC. Interesting to learn that the VIC20 large letters are particularly helpful to one section of the community. If and when you do decide to upgrade, I would suggest you look at the Amiga 500. The Amiga has a variety of letter sizes and there may be some that are particularly easy to read. PH

K E Baber of 6 Pandora Road, Walsgrave, Coventry, CV2 2FU writes: There is virtually no material published of interest to the Plus/4 owner. It becomes very monotonous to continually read various experts extolling the virtues of databases, laser printers etc at great length and ad nauseam. Let's have some help for the 'poor relations' without Disk Drives, Amigas and 128's or perhaps a reduced rate of subscription as I am sure such members do not get anywhere near their's money worth.

- This letter is printed almost as it came. As a matter of interest, the AGM voted to increase the subscription rate for next year. Who will defend the honour of ICPUG? PH

THE NEXT PROBLEM

J R Bromfield of 12 Grasmere Avenue, Harpenden, Herts, AL5 5PS poses the following problem: Why does the following program give a 'next without for in 50' error?

```
10 for x=1 to 10 : if x=6 then print : gosub 30
20 print x; : next x : print : goto 40
30 for y=1 to 10 : if y=6 then print : return
40 print y;
50 next y
```

KEY TIPS

M Reynolds of 75 Chapman Avenue, Maidstone, Kent ME15 8EL writes: I have had a small problem with Vizawrite Desktop for the Amiga. The program has a USA default keymap. Changing this through preferences did not permanently change the keymap for me. Fiona Haynes of Vizawrite made the following suggestion: Edit the startup-sequence and place the command 'Setmap GB' between 'Binddrivers' and 'LoadWB'.

TWO FALLS OR ONE SUBMISSION

John Austin of 20 Tivoli Park Avenue, Margate, Kent CT9 5TH writes: I would like to submit articles to ICPUG and would like to know the best way of sending the articles to you. I have an Amiga 500 and can send the text either in ASCII format or via Textcraft and I can also provide a printout.

David G Muff of 22 Brookwood Road, Southfields, Wandsworth, London SW18 5BP writes: I am not sure how I should submit an article for inclusion in the ICPUG magazine. Can you read Script/Plus files?

- Our Head Ed has promised to make up a set of notes on submitting articles for budding authors. They may already be in this issue. PH

A MEAGRE MEMORY PROBLEM

Mr R J Stephens of 99 Beswick Avenue, Bournemouth BH10 5AS writes: When using the A501 memory pack with an Amiga 500 some programs do not like the addition of this extra memory, eg Textcraft. Although you can reduce the memory available with the 'no-fast-mem' program, has anyone managed to achieve the same result in hardware, so that you do not have to keep plugging the memory-pack in and out? It is often more convenient to leave it out!

LARGE SHEEP

W J Hind of Christinegarden 44, 5035 Bergen-Sandviken, Norway writes: I have a 1750 RAM expansion from England. I also have the GEOS software. It appears I have an old version of the RAM disk software as it is V1.0 and dated 12/5/85. I therefore have no GEOS related software. Can anyone help? What has happened to First Analytical?

THE GOOD THE BAD AND THE UGLY

Mr R J Burt-Frost of 18 Fairisle Road, Lord'shill, Southampton, SO1 8BY writes as a follow up to Pete Miles article (Vol 10, No 2, Pg 147, Pg 212): I wholeheartedly agree with his statements about the use of so called low cost disks. The only option if you want reliability is to stick to brand names. Is there a list of 'good and bad' disks?

SPACED OUT!

John P Marchant of 43 Bowhill, Putnoe, Bedford MK41 8EQ writes: HIT ANY KEY. I am conducting a personal campaign to put a stop to the use of this phrase. HIT: This is not the way to treat a keyboard. I suggest pressing the keys. ANY KEY: This is bad as not all keys will produce the desired result, ie Ctrl, Shift. I consider a sensible alternative would be 'Space to Continue'.

- Yes I agree. It is very important for programmers to look carefully at the instructions they give to users. But Mr Marchant, what does 'Space to Continue' mean? Surely 'Press and release the Spacebar' would be better. PH

FOR SALE AND WANTED

Send small adverts to Peter Hauke (address inside front cover)

Adverts are free, but please keep them down to about 200-250 characters maximum, though if you have particularly interesting items to advertise you can send a longer advert. Lists of games will not be included unless they are very special or the list is very short. Try and keep to the same style as the adverts in the magazine, and word the advert as it will appear. This makes it easier to type in. Always include a town or county with your telephone number. Reasons for sale will be included, but 'salesy' messages will be edited. Please put the major item on sale at the beginning of the advert. Price your items reasonably to ensure that they get sold. The following are some abbreviations that are used: SAE - Stamped Addressed Envelope; WHY - What Have You; o.n.o - Or Nearest Offer; eves - Contact only in the evenings, in general between 6 and 10pm; w/e - Contact only during the weekend; p&p - Post and Package.

For Sale

VIZAWRITE Desktop for Amiga. Perfect condition as new - £50 inc postage. Pete Wright, 45 Mundon Road, Maldon, Essex CM9 7JT, tel (0621) 56207

C64 TAPE software for sale. All as new £1-4. Currah speech synthesiser £10 o.n.o. Write for list to Iain Hawker, 1 Solway Place, Holm Stree, Moffat, DG10 9EB

C64/1541/C2N; 2 Joysticks; Kaga Taxan KP810 printer and interface; modem; koalapad and lots of tape and disk software (Easyscript, Final Cartridge II, Expert V3.1+ESM, blank disk, C64 dustcover and games). £400, will not split. Also SX64 for £150. All for £500. Buyer collects. Ian Learmonth, 26 Barley Lane, Kingsthorpe, Northampton, NN2 8AT, tel (0604) 846338

C16 HARDWARE and C16/Plus 4 software (£1 to £7). SAE to R Yeardlev, 23 Saville Road, Whiston, S Yorks, S60 4EE

AMIGA VIP Professional as new. David Johnson, tel (0754) 66629 (Skegness - eve)

CBM803 printer with Printkit IV (in and working) and Geopublish. Swap WHY. Nick Brill, 16 Bridge Road, Chessington, Surrey KT9 2EP

3032 COMPUTER; 4040 Dual Disk Drive; Tractor Printer 3022; Cassette deck; Visicalc, Petact Business Systems, Purchase Accounting. All in excellent condition and perfect working order, with instruction books. Reasonable offers considered. Mrs Scott, tel (0543) 262899 (Lichfield)

TWO 8096-SK computers with built in RS232 interfaces. One careful owner. Used only for word processing. £150 each. Alistair Kelman, tel 01-353 0517 or 01-202 5675 (FAX: 01-202 8045)

RE-INKER for cassette printer ribbons. Re-inks each printer ribbon 50 times for a cost of 10 pence. £75 o.n.o. HP Final Cartridge with manual for £15. 1541 Drive just had Microport fix, reasonable offers. Tel (0253) 734330 after 7pm

C64 SOFTWARE for sale: Simons Basic extension; 3D Graphics Drawing Board; LOGO; Music Compendium; Artist 64 and many games from £2-5. Many C64 books and 4 bound volumes of Input magazine in mint condition. Commodore sound sampler and disk software. Some Amiga software. Swap for Amiga Software. Tel Phil White (0922) 53814 (Aldridge)

WORDPRO 4, complete with disk, manual and ROM. Tapes: Basic Basic MP001; 3 Maths MP0007; Linear Programming MP049; Intro to Algebra MP061; 2 Languages MP064; English Skills MP085; Treasure Trove of games. Books: Pet CBM personal computer guide; User ref manual basic V4.0; 2 User's Guide 8000 series; 2 Users manuals disk drive 2040 to 8050 and 6 on 2040 only; Pet Graphics by Nick Hampshire. Chris Wylie, 10 Heath Drive, Upton L49 6LF

C128D and 1901 colour monitor with Superbase/Superscript, Big Blue Reader, Digital Research CP/M Plus manual for £500. DPS1101 daisywheel printer for £150. All in perfect condition. Andrew. Tel (0296) 622623 (Wendover - eves & w/e)

2 CBM 1551 Disk Drives (suitable only for plus/4) for £100 each and some games £3 to £5. Ray Hyman. Tel 051-733 9046 (Liverpool - eves)

C64 STEP by Step Guide to Graphics Programming (Phill Cornes) incl. tape and two books. Fourth Protocol (C64). White lightning (Oasis), Graphics Developement System (C64). Any reasonable offer accepted. R J Burt-Frost, tel (0703) 735109 (Southampton)

DOLPHIN DOS 64/1541 never fully fitted, bought C128D instead, £35. J C Black, 17 Greenbank Grove, Edinburgh EH10 5ST, tel 031-447 3274

AMIGA software: GFL Championship Football £12; Dr Fruit £6; Demolition £6; Space Battle £6; inc p&p. Stuart Field, 122 Alexandra Road, Birmingham B5 7NN, tel 021-440 3007

PET 8296 with green screen monitor; 8050 dual disk drive; CBM 6400 daisywheel printer; Wordpro 5+; The Manager database; Visicalc spreadsheet; typewriter program and other software, Programming the PET/CBM (West) and Mastering Visicalc. All inclusive £450 ono. C Booley, 16 Lichfield Drive, Northampton NN4 0QU, tel (0604) 769762 (eve)

TURBOTRANS. German 1541 drive enhancement (256k internal RAM disk, Parallel cable, cartridge kernal (64), utility disk: one pass 15 second copier, file copier etc, manual). £70 ono. Dolphin Dos (64) £30. Software: Isepic (US Expert-type) £10. Di-Sector V3.0e (Starpoint, with Manual) £10. Magic Disk Kit (Robtek). £7. IK+ and Guadalcanal (Activision) £5 for both. Books: Commodore 128 Companion (as new) £5. Phone Bill on (0985) 40539

SOFTWARE for the 64: Easy Script £5. Easy File £5. Turboprint GT seral/parallel Interface £15. Compunet £15. All items in good condition. All prices incl. P&P. Mike Leach, 5 Monaebrook Place, Helensburgh, Dunbartonshire G84 7JD

Wanted

BACK ISSUES of ICPUG Newsletter especially pre-1981. Reasonable offers please. Bavin Clarke, Uplands, Burry Port, Dyfed SA16 0TD

PET BITS hardware and software. If you have any you want to get rid of then me and I will make an offer. Bavin Clarke (see above)

C128D and monitor. Must be in good condition and reasonably priced. Brian Fowler, tel (03632) 5400 (Devon)

1526 Printer User's Manual or any setting up and using articles. Desparate for information. Good price paid. Jim Croft, 16 Tichborne, Rickmansworth, Herts, WD3 2TN

Aegis 'Sonix' for the Amiga. R J Burt-Frost, tel (0703) 735109